

Blind and Visually Impaired Students

EDUCATIONAL SERVICE GUIDELINES



NATIONAL ASSOCIATION

OF STATE DIRECTORS

OF SPECIAL EDUCATION

Developed in cooperation with
the Hilton/Perkins Program and
the National Association of State
Directors of Special Education

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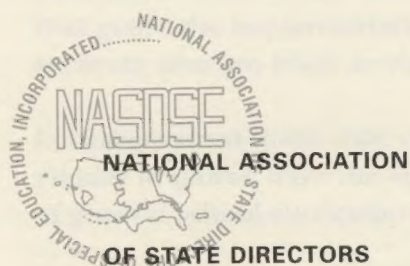
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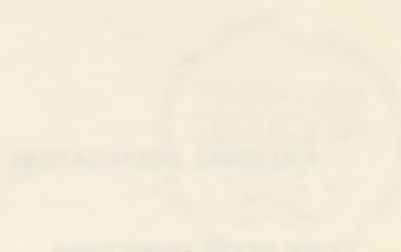
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Blind and Visually Impaired Students: Educational Service Guidelines



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Acknowledgments

NASDSE's mission focuses on providing services to State agencies to facilitate their efforts to maximize educational outcomes for individuals with disabilities. However, in response to requests from state directors, and others in the professional community and as a flagship special education organization, NASDSE has assumed a more direct advocacy role on behalf of students with low incidence disabilities.

Since 1991, NASDSE has coordinated a number of disability specific seminars, forums, and information development and dissemination projects for low incidence populations. Results have been gratifying as the broader disability community has supported and encouraged such projects, along with many others, which are more generic in nature. All of this activity has occurred at a time when public policy in general has moved away from dependence on group nomenclature as disability identifiers. This project, however, presented a unique opportunity for NASDSE to use its considerable influence to coordinate an advocacy project for the low incidence group of students whose visual impairments present extraordinary challenges in achieving optimum educational growth.

NASDSE expresses sincere thanks to the Hilton/Perkins Program of Perkins School for the Blind, for the financial support and initial vision for this guidelines document. Twelve national organizations provided representatives on both the writing team and the content review team. NASDSE thanks these organizations and their representatives for their collegial support and dedication to improving the educational opportunities of students with visual impairment. The members of the writing team and their organization affiliation are listed below. While organizational participation does not imply total endorsement of everything in the document by each organization, it does signify strong support of the overall concept embodied in the document.

Additionally, 68 content specialists from across the United States served on the review team and are listed in the appendices. The National Association of State Directors of Special Education and the writing team appreciate the support of the Hilton/Perkins Program, the generous efforts of the content specialists, and the encouragement of several state departments of education, such as the state of California, which have developed guidelines documents and willingly shared their excellent publications.

The Writing Team

The writing team was comprised of representatives of the 13 participating organizations. They assumed primary responsibility for developing the text of the guidelines document. While all members of the Writing Team contributed to all chapters, certain members of the team assumed responsibility for individual chapters or sections of the text. Listed below are the participating organizations and the individual team members who represented that organization.

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Forward

*All education is special. All students are special.
Are some more special than others? No, but because of
exceptional abilities or special challenges, some require
adjustments, additions, or changes to their programs.
Those from low incidence disability populations and/or
whose disabilities are more challenging may need extraor-
dinary levels of specialized support.*

DR. DON HICKS, 1994

When persons from disability groups are asked what they wish from the larger society in the way of treatment and perception, we often get a response similar to that attributed to a blind woman's retort to a reporter "the opportunity to be equal and the right to be different." When we ask those who work with blind persons as service providers or, in a more generic sense, as stakeholders by virtue of professional, social, or personal reasons what they wish for on behalf of blind family members, friends or students, the response can be summarized as "achievement at optimum levels in all domains."

The intention of this guidelines document for programs serving students who are blind and visually impaired is to provide a road map for agencies, education service providers and parents. The chapters provide, in detail, needed program elements outlining comprehensive quality programs for students with visual impairment. The guidelines focus on best practices without value judgements of existing programs or personnel.

The process for developing this document, as well as its format and design, borrows features from a previous project of a similar nature — NASDSE's Deaf Initiatives Project, completed in 1994. The manner in which the guidelines document was conceived and developed was unique to the field of visual impairments and blindness, although similar to its sister project on deafness. It is a collaborative effort of 13 organizations that have special interests in the provision of services to visually impaired persons and their families. A writing team composed of representatives of these organizations worked with the guidance of a Project Director and with occasional assistance from consultants. Nearly 70 other volunteers reviewed chapter drafts and provided comments and suggestions to writers.

This document is organized into five chapters and a Glossary. Each chapter begins with a listing of issues which it will address. Each chapter is followed by a reference section applicable to that chapter. Some issues overlap or are repeated in different contexts across chapters.

The community-wide collaboration which resulted in this document exemplifies the dedication of thousands of professionals, consumers, and parents. However, improvements in the quality of services to students who are blind or visually impaired will emerge only as states, districts, other service providers, and parents apply its contents to the way they plan and conduct the business we call education.

1

Foundations for Educating Students Who Are Blind or Visually Impaired, Including Those with Additional Disabilities

Introduction

Psychologists, educators, and others have speculated for years about how much people learn through vision. They have learned that people acquire most information about their environment through sight. What does this imply for blind and visually impaired children? Do we believe that their impairments are so severe that nothing can be done, and do we give up on these children? Do we assume that they have a "sixth sense," and consider everything they do amazing? Or do we know that there are adaptations to education that can equalize the learning opportunities for blind and visually impaired children? Using different materials and methodology, most educational experiences provided to sighted children can be replicated for blind or visually impaired children.

Specialized educational services for children with visual impairments are based on the concept of providing the same educational experiences through modifications in materials and methods. Observations of the ways students organize their world and learn basic concepts such as classification or comparison have given parents and educators extensive information about the educational needs of children who are blind or visually impaired. This information has guided those who have developed teacher preparation programs so that future teachers of children with visual impairments will know how to quickly and effectively turn any visual learning experience into a tactual or auditory one, or one that is accessible to a child with low vision. Teachers who effectively make these adaptations are specially trained experts who have had experience in working with blind and visually impaired children.

The fundamental task of educators and parents today is to enhance the learning environment of the child who is blind or visually impaired so that visual learning experiences are effective and meaningful in tactual, auditory, and/or visual form. To do so requires consideration of the skills and knowledge of teachers, a partnership with parents, and an array of educational options. Educators who administer special education services at the state, regional, and local level have a responsibility to establish, support, and evaluate high quality educational programs for blind and visually impaired children. Parents and educators must understand that children who are blind or visually impaired, like all children, will need individualized programs, different paths, and different time schedules in order to "be all they can be."

- Issue I** **Educators must be knowledgeable about the unique educational needs of students who are blind or visually impaired.**
- Issue II** **Educators must know about public policy and legislation that impact the education of students who are blind or visually impaired.**
- Issue III** **Educators must be aware of the philosophical foundations that guide the implementation of educational services for students who are blind or visually impaired.**
- Issue IV** **Educators must know that students who are blind or visually impaired have the right to participate in all areas of general school curriculum and activities.**
- Issue V** **Educators must be knowledgeable about the need for a full continuum of placement options for students who are blind or visually impaired, and they must understand the differences among placement options.**
- Issue VI** **Educators must be aware of the diversity of the population of students with visual impairments, including those with multiple disabilities.**
- Issue VII** **Educators must respect the importance of equal participation of parents in educational planning and promote the concept of parents as partners in the educational process.**
- Issue VIII** **Educators must recognize that education for students with blindness or visual impairments is a continual transition process, and therefore, provide appropriate transition support at critical times.**

Issue IX Educators must be knowledgeable about the various types of instructional technologies and their impact on the educational opportunities for students who are blind or visually impaired.

Issue X Educators must recognize that families with infants or preschoolers who are blind or visually impaired, including those with additional disabilities, need services from professional teachers of students with visual impairments and from certified orientation and mobility instructors.

Students Who Are Blind or Visually Impaired — Who Are They?

There are two common ways of defining blindness and visual impairment. For many years, a “legal” or “medical” definition used to define blindness has been: (a) visual acuity of 20/200 or less in the better eye with correction; or (b) a visual field subtending an angle of 20 degrees or less. That definition is still widely used in the medical profession and occasionally applied in the rehabilitation of adults. However, most educators have not used the term “legal blindness” to determine educational needs of children since the 1960s. The Individuals With Disabilities Education Act (IDEA), a federal mandate, defines a child as being eligible for special education services when the nature of the visual impairment requires such services. Often, the state criterion for eligibility for special education services is the presence of a visual impairment that results in the need for specialized services. The second way of defining children with visual impairments is to describe them as functionally blind (i.e., those whose primary avenues of learning are tactual and auditory) or functionally with low vision (i.e., those who have a visual impairment that affects learning but who still use vision as their primary avenue of learning).

There are many variations of these definitions. It is important, however, to realize that the legal definition of blindness is not an accurate measure to use when determining educational decisions, especially learning media.

Issue I Educators must be knowledgeable of the unique educational needs of students who are blind or visually impaired.

Children with visual impairments are a heterogeneous group. Some children have mild vision impairment while others are totally blind. Some have visual impairment as their only disability while others have combinations of two or more disabilities. Some learn academically and some learn functionally. Some children have been visually impaired since birth and some lost their vision yesterday.

Some live in the city and others reside in the most rural areas of the country. Yet, this diverse group of children have one thing in common: their learning and their daily lives are impacted by a visual impairment which results in their having common educational needs.

Most students who are blind or visually impaired without additional disabilities are placed in general education classes in their local neighborhood schools. They usually receive specialized services from itinerant teachers who travel among the schools in the region, providing consultation to the classroom teacher and instruction for the child. Orientation and mobility, which addresses travel and orientation within the environment, is a necessary related service for blind and visually impaired students. An orientation and mobility specialist provides instruction in this area. Other options for placements in some local school districts might be in a self-contained class for blind and visually impaired students, in a resource room, or in a classroom with children with other disabilities. Almost all states include a school for blind and visually impaired children as an option. Often, these are residential schools, offering housing and meals to children who may live hundreds of miles away from the school itself.

For many students who are visually impaired, the content of learning will be the same as for all children, but the methodology will be vastly different. For others, both content and methodology will need to be different. All these students will need some skills unique to those with visual impairments. Of the many ways in which vision impairment impact learning, the three that have the most impact on education are:

Experiential Learning

Long before sighted babies begin to travel through their environment, they begin to visually scan and organize their world. Objects beyond arm's reach become very important, and they begin to devise motoric ways to come into contact with them. Environments become familiar, and new ones are examined closely. As sighted children grow, they begin to categorize objects in their environment as same or different, small or large, rough or smooth, warm or cool, etc. Long before they read their first book, they have visual and concrete experiences similar to the characters in the book.

On the other hand, when a child has vision impairment, experiential learning becomes a challenging task for parents and teachers. The blind or visually impaired child requires the intervention of parents and others so that he will experience objects beyond arm's reach. A system of organizing an environment so that it becomes familiar can occur, but it will take the skills of teachers and parents to make it happen. Experiential learning is no less possible for blind children

than it is for sighted youngsters, but it requires adults who recognize the areas of learning in which the child needs assistance and who can facilitate meaningful learning for blind and low vision children.

Compensatory Skills

Another educational need of blind and visually impaired students is compensatory skills which are needed to access the same learning experiences as sighted students. Students who are blind or visually impaired now have the opportunity to learn and grow in any classroom because methods and techniques have been developed that result in opportunities to access the identical curriculum as other students. Most areas of curriculum that have been developed for sighted students can be modified so that blind and visually impaired students have equal access too. However, instruction for these students from the adapted curriculum is highly specialized and must, usually, be provided by a specialized teacher. Instruction in reading and writing through Braille, using optical devices with standard print, reading tactual graphics, and using auditory materials for learning are but a few of the areas that constitute the unique educational needs of blind and visually impaired students.

The Expanded Core Curriculum

The third unique educational need of blind and visually impaired students is learning to access information that is acquired casually and incidentally by sighted learners. Sighted youngsters gather, categorize, and utilize a tremendous amount of information through casual observation of their environment. In addition, unique needs can be met through instruction in using specialized equipment and materials that are not similar to what is available to sighted students. These areas are referred to as the "expanded core curriculum" for students and are in addition to the general curriculum. The expanded core curriculum consists of:

- Compensatory academic skills, including communication modes
- Social interaction skills
- Recreation and leisure skills
- Use of assistive technology
- Orientation and mobility
- Independent living skills
- Career education
- Visual efficiency skills (Hatlen, 1996).

While some of these areas might simply appear to be skills that will allow the student to better access the traditional core curriculum, others are unique to

students with visual impairment. The expanded core curriculum will require time to teach, and must be taught by teachers with specialized skills for this population. For example, a teacher must have a thorough understanding of how visual impairment effects social interaction and must also know how to teach skills in a systematic manner that will lead the student to acquire social skills similar to those of sighted students. Recognition of the unique needs of blind or visually impaired students is fundamental to providing an effective education which requires the commitment of instructional time and resources.

Blindness and visual impairment effect the learning processes of students. Students with visual impairment and blindness need expert assistance in experiential learning, in acquiring compensatory skills, and in accessing the expanded core curriculum. But, with resources and time, an educational program that is equal to that provided for sighted students is attainable for students who are blind or visually impaired.

Issue II Educators must know about public policy and legislation that impact the education of students with blindness or visual impairment.

There has been a long history of legislation favorable to persons who are blind, such as the "Act to Promote the Education of the Blind." This legislation established the American Printing House for the Blind and provided a process that allowed schools to acquire instructional materials and books at no cost. The Randolph-Sheppard Act and the many state legislative acts reflecting its spirit provide business enterprise opportunities in federal and state owned facilities for legally blind individuals.

Individuals with Disabilities Education Act

The passage of PL 94-142 in 1975 brought about some changes in the education of students with visual impairments; but educators, parents and adult consumers with visual impairments had initiated major changes in services for these students long before this landmark legislation. The recent revisions of this legislation, now called IDEA (Individuals with Disabilities Education Act), hold the promise of new educational opportunities for students with blindness or visual impairments. Administrators should be familiar with these new provisions that were added in the reauthorization of IDEA:

- 1) Instruction in orientation and mobility, an educational necessity for students with visual impairments, is listed in IDEA as a related service.
- 2) Braille instruction is given precedence over print until assessment of the learning media for each student is completed. Twenty-eight states now have

laws relating to instruction in Braille reading and writing. These laws stress teacher competence in Braille, equal access to Brailled materials and textbooks, and preference for Braille as a reading medium.

- 3) Students with visual impairment must be given a continuum of placement options.
- 4) Students with visual impairment must be included in state's district assessment.
- 5) The assistive technology needs of students with visual impairment must be considered.

Policy Guidance

On November 3, 1995, the United States Department of Education issued a document entitled "Policy Guidance on Educating Blind and Visually Impaired Students." It was addressed to Chief State School Officers, and sent by Judith E. Heumann and Thomas Hehir, the two highest-ranking Department officers whose responsibility is education for children with disabilities.

This landmark document (see Appendix A for full text) is the first time the Department of Education has provided written guidelines on what constitutes appropriate educational services for blind and visually impaired students. In its introduction the Policy Guidance states that "... it has come to our attention that services for some blind and visually impaired students are not appropriately addressing their unique educational and learning needs ..." In clear and concise words, the Department of Education has produced a powerful statement in support of the specialized educational needs of students with visual impairments:

- 1) Assessment must be carefully and thoroughly performed by professionals with knowledge of the unique needs of students with visual impairment.
- 2) Literacy for blind and visually impaired students, especially in the area of Braille reading and writing, is emphasized.
- 3) Instruction in Orientation and Mobility must be provided by qualified professionals to all students with visual impairment, as appropriate.

Because educators and parents have not always agreed on the areas of curriculum that constitute the expanded core curriculum for students who are blind and visually impaired, it is especially significant that the Policy Guidance document states the following: "To ensure that IEPs for students who are blind or visually impaired address their specific needs effectively, the following unique needs should be considered as IEPs for these students are developed:

- Skills necessary to attain literacy in reading and writing, including appropriate instructional methods;
- Skills for acquiring information, including appropriate use of technological devices and services;
- Orientation and Mobility Instruction;
- Social interaction skills;
- Transition services needed;
- Recreation and;
- Career Education.

This list is not intended to be exhaustive. Participants on IEP (individualized education programs) teams could determine that it would be appropriate to consider an individual student's need for other skills in addition to the skills listed above. Therefore, in making decisions about the educational programs for students who are visually impaired, IEP teams must consider the full range of skills necessary to enable these students to learn effectively " (Policy Guidance, p.4).

The Policy Guidance makes a clear and unequivocal statement that schools are to provide a continuum of alternative placements in order to meet the individual needs of students, that the placement which best meets the needs of a student at a particular time in her/his educational journey is that student's Least Restrictive Environment (LRE). The guidance document further describes continuum placement options in regular classrooms with support services, self-contained classrooms in local school districts, and special schools with residential options.

The IEP drives placement decisions. In emphasizing this point, the Policy Guidance states that "...in some instances, placement decisions are inappropriately made before the IEPs that address a child's unique needs are developed... Since Part B requires that each child's placement be based on his or her IEP, making placement decisions before a student's IEP is developed is a practice that violates Part B and could result in the denial of FAPE (Free Appropriate Public Education) in the LRE...."(Policy Guidance, p.10)

Issue III Educators must be aware of the philosophical foundations that guide the implementation of educational services for students who are blind or visually impaired.

The long and successful history of education for blind and visually impaired students has resulted in a set of strong principles, or "non-negotiables", that form the professional foundation for quality educational services:

- 1) The primary goal of educational services for blind and visually impaired students is to prepare them for inclusion into society. Individuals are ready for inclusion at different times and to different degrees. Most students will need special preparation in order to be appropriately included, and this may require a variety of educational settings. Because the population of students who are blind or visually impaired is so diverse, the time and level of inclusion must be determined individually.
- 2) The only way blind and visually impaired students, with or without additional disabilities, will be effectively educated is by having a full continuum of placement options available. This will ensure that the individual needs of each student are fully considered.
- 3) The educational needs of blind and visually impaired students include an Expanded Core Curriculum (Appendix G) that addresses the unique needs of these students. This Curriculum includes:
 - compensatory academic skills, including communication modes
 - social interaction skills
 - recreation and leisure skills
 - use of assistive technology
 - orientation and mobility
 - independent living skills
 - career education
 - visual efficiency skills
- 4) Assessment of students, prior to educational planning and placement, must be comprehensive and must include assessment in all areas of the Expanded Core Curriculum. Other required specialized assessments include a clinical low vision examination and a learning media assessment. Students with visual impairments should also be included in assessment procedures given to all students; they should receive appropriate accommodations and adaptations for testing.
- 5) Students who are blind or visually impaired, including those with additional disabilities, must be served by qualified professionals who are appropriately certified in the education of visually impaired students. These students must also receive services from qualified personnel in orientation and mobility.
- 6) It is the responsibility of the state, region, and local district to assure that an adequate supply of qualified professional personnel is available to students.

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- 7) Students who are blind or visually impaired and have additional disabilities require the services of qualified teachers for blind and visually impaired students and of orientation and mobility instructors, regardless of other services provided for students with other disabilities.
 - 8) The IEP team must consider instruction in orientation and mobility for all blind and visually impaired students.
 - 9) Parents or legal guardians and educators form a partnership of equal status in all aspects of assessment, program planning, placement decisions, and ongoing services for blind and visually impaired students.
 - 10) Programs designed for the education of blind and visually impaired students serve children with visual impairments as a result of disease, hereditary condition, anomalies of or trauma to the eyes or visual system and are not appropriate for serving students with visual perception disabilities.
 - 11) Instruction to develop literacy for all blind and visually impaired students is a fundamental right.
 - 12) Students who are blind or visually impaired must have their educational materials in the appropriate media and at the same time as their sighted classmates.
 - 13) Class sizes and caseloads must be based on the individual needs of students.

Support for the highest quality of educational services for blind and visually impaired students comes from a variety of sources. Organizations representing blind persons, parents of blind children, and professionals serving the blind and visually impaired all have similar interests in the status of education for these children.

The relationship between organizations of and for the blind, as well as parent organizations, is a dynamic network with cooperation and mutual understandings on key issues. The consensus on these issues among national organizations of and for the blind and visually impaired should help guide policy development among state special education departments. See Appendix H: Directory of Resources for information on how to contact parent organizations.

Organizations of blind adults have had an intense interest in the education of students who are blind or visually impaired. In fact, organized blind adults alerted educators to the serious issues in schools regarding instruction in Braille reading and writing. Parents and professionals have found that bringing blind adults into discussions involving the education of blind or visually impaired students is essential to insure the best services for students.

Issue IV Educators must know that students who are blind or visually impaired, including those with additional disabilities, have the right to participate in all areas of regular school curriculum and activities.

Because students who are blind or visually impaired have been successfully included in general education classrooms in neighborhood schools for many years, professionals have become very adept at making certain that curricular areas are accessible to these students. Educators of students with visual impairments can adapt experiences so that the concept remains the same, even though the materials and presentation may be different. Visual concepts can be presented through the use of low vision adaptations, auditory materials, and/or tactual presentations. It must be stressed that these similar learning experiences will not all take place in the general classroom along with sighted classmates. At times, however, it may be necessary for the student with a visual impairment to receive instruction in a separate physical location. The teacher of the visually impaired may have determined that a particular concept or skill will be better presented to the student individually, away from sighted classmates. Even in these situations, the student with a visual impairment often learns the same concept at the same time as his sighted peers.

Modern technology has made it easier to produce Braille from print. While literary Braille can now be easily transcribed from print to Braille, materials with graphics, math, science and music still require ample lead time in order to be available to students in a timely manner. It is common practice to deliver textbooks chapter by chapter as they are completed by transcribers; however, delivery of a textbook in its entirety is preferable because of the needed information in glossaries, indexes, etc. It should be noted that persons trained in Braille transcription and computer software must be utilized in the production of these materials. Whatever learning medium is most effective with a particular student, the instructional materials, the technology, and the equipment should be readily available so that educational opportunities for the student with visual impairments will be equal to those of all other students.

All areas of curriculum, including general education, alternative, compensatory, and the expanded core curriculum, can be adapted and/or adjusted to accommodate students with visual impairments. However, the cost for equality can be high. It is often expensive to provide this level of equal access for learning to a student who is blind or visually impaired. For example, a computer with necessary peripherals may be a necessity for the student with a visual impairment. This needed technology may cost thousands of dollars. A Braille-writer may cost \$900. A Braille textbook may cost over \$1000; and, for most Braille readers, an auditory version is not an acceptable substitute.

Access must extend beyond the classroom and instructional materials. Access must include physical access to all parts of the campus and the instruction in orientation and mobility that will give the student the freedom to travel throughout the campus. Students who are blind or visually impaired have the same need for balance in their education, leisure, and social life as do all students. For those activities and events that occur under school sponsorship, educational systems have a fundamental responsibility to make everything available to all students, including those who are visually impaired.

Issue V Educators must be knowledgeable about the need for a full continuum of placement options for students who are blind or visually impaired, and they must understand the differences among placement options.

There is a saying among educators of students with visual impairments that goes, "There is no best placement for a child with a visual impairment. There is a best placement for each individual child at a particular time in her/his life." Therefore, we cannot adequately meet the needs of students who are blind or visually impaired unless we have a full continuum of placement options. This fact is reinforced by the regulations for IDEA and by the Policy Guidance Paper issued by the U.S. Department of Education. (See Appendix A). Also, Goal 5 of the National Agenda (See Appendix E) states "Local education programs will ensure that all students have access to a full array of placement options" (Corn, p. 10).

The need for a full continuum of placement options is so solidly supported by educators, blind persons, and parents that there should be little controversy over this issue. Yet, the mistaken impression persists that all students with disabilities should be in full-inclusion placements (full-time in a general education classroom).

Educators of students with visual impairments began providing students with education in an inclusive setting as early as 1900. This movement gradually expanded from the first inclusive group in the Chicago public schools to other urban areas. However, in the 1950s and 1960s dramatic changes occurred in educational services for students with visual impairments. Opportunities for education in inclusive settings expanded quickly. Thus, long before P.L. 94-142, the legislation that introduced the concept of "Least Restrictive Environment," many students with visual impairments were successfully included in regular classrooms in their neighborhood schools, with support from specially trained, certified teachers of visually impaired students.

The development of placement options that provided increased opportunities for integration of visually impaired children with children without disabilities did

not eliminate the need for more traditional settings. Some examples of placement options that should be made available to students include:

“Placement in a regular classroom with needed support services provided in that classroom by an itinerant teacher or by a special teacher assigned to that school;

Placement in the regular classroom with services outside the classroom by an itinerant teacher or by a special teacher assigned to that school;

Placement in a self-contained classroom in a general education school;

Placement in a special school with residential option” (Policy Guidance, p. 12).

See Chapter 4 for more detailed descriptions of placement options.

Educators of students with visual impairments acknowledge that education in an inclusive setting is a valuable addition to the continuum of placement options. Educators also continue to believe that the intent of IDEA is that the sequence of events that lead to educational services for children with visual impairments is:

- Identification and referral
- Assessment
- IEP development
- Placement

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Therefore, placement considerations should never be made before the student receives a comprehensive assessment. Based on that assessment, educational goals are defined on the IEP by a specified IEP team. Then, and only then, can the IEP team make an informed decision about educational placement for a particular child. Placement is driven by the intensity of needs of each individual student.

Educators of students with visual impairments reject any concept of a hierarchy of desirability among placement options – the idea that the child must fail in a less intensive placement before gaining access to a more intensive placement. The individual needs of each child, not a philosophical commitment or an erroneous interpretation of “least restrictive environment” or “compliance” must determine placement. The child who is placed in the educational setting that will be most beneficial in addressing his educational potential is the least restrictive environment for that child. Blind and visually impaired students have the capability to grow up to be adults who are literate, mobile, social, employable, and independent. Appropriate services, including serious consideration of placement, will determine whether the student receives adequate instruction so that all of these attributes are attained.

Issue VI Educators must be aware of the diversity of the population of students with visual impairments, including those with additional disabilities.

Educators of students with visual impairments serve a complex, heterogeneous population of students. Because blindness and visual impairment are low incidence disabilities, it often becomes the responsibility of one teacher in a geographical region to serve students from birth to age 22, from totally blind to mildly visually impaired, from gifted to severely cognitively impaired. Often, the teacher of the visually impaired will best serve students as a member of a trans-disciplinary team. Only by using the expertise of other professionals will the teacher of the visually impaired be able to meet the diverse needs of students with multiple impairments.

When a student has more than one disability, it is extremely important to examine the situation individually. Each disability should be carefully assessed, both separately and in relation to other disabilities. Well over half of these students who are identified as having a visual impairment also have one or more additional disabilities (Sacks & Silberman, 1998). Provisions for services for these students vary greatly, depending on the type and degree of the additional impairment(s). Often, students who are visually impaired and have multiple disabilities are served in self-contained classes for students who have one of the other disabilities in common. In these cases, an itinerant teacher for the visually impaired will serve the student, either by taking the student with a visual impairment out of the classroom or by meeting the needs of the student in the classroom.

Several factors are paramount for the educational professional serving students with visual impairments and multiple disabilities:

- 1) Teachers of the visually impaired must collaborate with other educators regarding the impact of other disabilities on the student's education.
- 2) Regardless of the number or severity of additional disabilities, the teacher of the visually impaired must be involved in the student's education if the student has a visual impairment that is affecting learning.
- 3) Teachers must acknowledge that there are times in the life of a student with multiple disabilities when the visual impairment must have primary attention. Educational service providers must be flexible so that members of a trans-disciplinary team can vary their time and commitment to the student.
- 4) Orientation and Mobility must be a part of educational programming for all students who are visually impaired and have additional disabilities. This caveat includes the student with low vision. Many low vision students appear to be safe travelers in and around their schools because they may not be

required to demonstrate their awareness and use of distant vision in familiar environments. For all students, including those with low vision, an assessment in orientation and mobility is essential.

For example, students who are dual-sensory impaired also have a wide variety of skills and ability levels. They, too, have the capability to grow up to be adults who are literate, mobile, social, employable, and independent. Traditionally, educators of the visually impaired have taken the leadership in education of students with deaf-blindness. However, the unique needs of these students require that the teacher receive special training specific to this population.

Since the 1960's, many schools for the blind and visually impaired have redefined their roles and have evolved to serve students with multiple disabilities and visual impairments. These schools often represent the very best programs for students with multiple disabilities, even though they also continue to serve students with a visual impairment as their only disability.

Issue VII Educators must respect the importance of equal participation of parents/legal guardians in educational planning and promote the concept of parents as partners in the educational process.

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IDEA clearly identifies parents/legal guardians as partners in the education of their children with disabilities. Educators of students with blindness or visual impairments involved parents/legal guardians in the educational process long before federal law mandated equal partnership between parent/legal guardians and educators.

What does equal partnership mean? It means that:

- 1) Educators will value the fact that parents often know their children better than anyone else.
- 2) Parents will actively be involved, from the moment of diagnosis and referral, to the moment of placement. They must be involved throughout the educational life of their student.
- 3) Consultation between parent and teacher will be as equal participants.
- 4) The IEP begins as a blank document that will be completed jointly by educators, parents and the student when appropriate.
- 5) The parents of a blind or visually impaired student will be provided information and training about all the potential strengths and needs of their student, including information on the expanded core curriculum.

- 6) Parents will be knowledgeable, informed advocates regarding the needs and the strengths of their child.
- 7) Parents will be active and equal participants in the development of public policy and legislation.
- 8) Parents will be fully informed of all public and private agencies or membership organizations that have potential benefit for them and their child.
- 9) Adequate time will be scheduled for the IEP meeting.
- 10) Parents will value the fact that educators have a wealth of knowledge about the unique needs of students.

Parents and educators have engaged in a long struggle to attain an equal partnership in the day to day instruction of children. The law mandates equality between parents and educators. Reason demands it.

While the investment by parents in their children exceeds anything else parents do in their lives, that investment carries added dimensions when the child is disabled. Grief, guilt, anger, denial, and shattered dreams are almost universal among parents of children who are blind or visually impaired. These emotions are often galvanized into persistent, assertive parents who know what they want for their children. Parents desire and demand equal participation. However, teachers and administrators must often take the initiative for this to occur. When parents become participants with teachers and administrators in the education of their children, everyone benefits.

Issue VIII Educators must recognize that education for students with blindness or visual impairments is a continual transition process, and provide appropriate transition support at critical times.

In most educational circles, "transition" has come to mean the time in a young adult's life when she/he moves from school and home to community and work. Transition teachers, transition coordinators, and other transition workers focus on the soon-to-graduate high school student. While students who are blind or visually impaired are also in critical need of this level of transition service, there are many other important transitions in the lives of these students that must be met.

Every move from one service or one placement to another is a transition. Every changing environment, age and level of maturity is a transition. Indeed, growing up requires continual transition. Moving from in-home infant services to a center-based toddler program is a critical transition for a child who is blind or visually impaired.

Preschool to kindergarten, elementary school to middle school, middle school to senior high school are all major transitions. In fact, educators and parents of children who are visually impaired have discovered that moving from elementary school (self-contained class, one teacher, 22 classmates) to middle school (departmentalized, seven teachers, 250 classmates) may be one of the most difficult transitions that children with visual impairments face. The “safe” environment of an elementary school becomes the confusing and complicated environment of a middle school.

Special attention might be necessary for students who are blind or visually impaired as they make the transitions between elementary school and middle school and middle school and high school. The specialized services of a teacher for the visually impaired need to be available during these transitions. Curry and Hatlen (1988) illustrated how specialized services must stay constant throughout the life of a student who is visually impaired, although the type of services will change. All educational service providers to students with visual impairment must be prepared for difficult transitions academically.

Likewise, parents and educators share many difficult transitions as children mature, learn more about themselves, and go through normal stages in childhood and adolescence. However, a few transitions may be unique to students who are blind or visually impaired. For example, approaching a 16th birthday without any hope of getting a driver’s license is a transition that may be particularly difficult for young people who are visually impaired. Issues of dating, of playing competitive team sports, of developing meaningful friendships, and issues of adult life will become transition periods for many young people who are blind or visually impaired.

Transition services to assist the young person to move from home and school to community and work are equally important for students with visual impairments. These services must begin long before the student graduates from high school, and they must often take place outside of the regular classroom. Because a visual impairment may not provide the student with incidental information and knowledge that leads to understanding community life and work, particular emphasis must be placed on direct instruction in accessing and enjoying community services and on career education. These areas are addressed in the Expanded Core Curriculum (see Appendix G).

Effective transition from school to the community requires preparation. Educators and rehabilitation professionals must collaborate to provide the best transition. Members of organizations of the blind can be a significant help by serving as role models of adult life and by sharing their own transitional experiences.

Students themselves must be included in transition plans, especially at the secondary education level.

Parents, consumers, and professionals share a common goal: Students with blindness or visual impairment who transition through the educational systems will be prepared and equipped to lead vocationally, personally, and socially satisfying lives. Being aware of and sensitive to the critical transitions that may impact students with visual impairment will help them achieve productive, gratifying lives.

Issue IX Educators should be knowledgeable about various types of instructional technologies and their impact on the educational opportunities for students who are blind or visually impaired, including those with additional disabilities.

Modern technology has revolutionized the lives of persons who are blind or visually impaired. The fact that visually impaired people can store and retrieve accessible information has profoundly changed their lives. There are two ways in which technology has affected the education of students who are blind or visually impaired.

First, modern technology has completely changed the accessibility of instructional materials for students with visual impairments. For example, until now production of Braille books for children has been a serious problem because Braille production was once very time-consuming and labor-intensive. In the best of circumstances, it was almost impossible to have a single copy of a book transcribed into Braille. Instead, technology was used to produce multiple copies of books. Thus, the child in a regular classroom whose teacher decided to use a textbook that was not available in Braille placed that child at serious risk of not having the same instructional materials as her/his classmates. However, current technology, including scanners, computers, Braille printers, and specialized software, makes it possible to produce Braille from print almost instantly with the assistance of competent Braille proof-readers. Now, every Braille-reading child should have access to appropriate instructional materials in the appropriate medium at the right time. In like manner, modern technology has provided low vision devices that have resulted in access to instructional materials for thousands of students with low vision. Also, some technology devices developed to enhance orientation and mobility have been effective in adding to the independent travel skills of students.

Secondly, the major revolution in technology is the manner in which it has added to the instructional tools of students. Although it is not a subject, but a tool to unlock subjects, instructional technology has become a major part of what students are taught. The basic desk-top or lap-top computer is now capable of

being enhanced with peripherals that make its functions entirely accessible for students who are blind or visually impaired. Specialized equipment for students who are visually impaired, such as pocket-sized Braillewriters that store information, equipment that will instantly produce print-to-Braille and Braille-to-print, screens and programs that provide access to students with low vision, and software and equipment that make computers accessible to students with multiple disabilities have forever changed the face of education for students who are blind or visually impaired. With such equipment students can write papers in Braille, proofread them, then re-produce them in print to be given to their general education classroom teacher.

Technology is no longer a luxury for students who are blind or visually impaired. It is a necessity. Every student who is blind or visually impaired, including those with additional disabilities, must have access to appropriate technology. In addition, creative educators are able to develop and/or adapt many programs to enhance the learning opportunities of children with severe additional disabilities. Unfortunately, modern technology that will be a major part of the lives of persons who are blind or visually impaired is not inexpensive. But it is necessary. School systems must find ways of providing this equipment regardless of cost, must insure that the correct technology for each child is used, and that it will carry over to adult life.

Issue X Educators must recognize that families with infants or preschoolers who are blind or visually impaired, including those with additional disabilities, require services from professional teachers of students with visual impairments and from certified orientation and mobility instructors.

Professionals serving blind and visually impaired students have selected their careers after serious consideration regarding their strengths and interests. Parents of visually impaired children, unless they are legal guardians or have adopted, do not choose to be parents of a child with a disability. They will almost always feel unprepared for the task of parenting a blind or visually impaired infant; and indeed, they probably are. It is naive to suggest to the mothers and fathers of infants newly diagnosed with blindness or visual impairment that there is little difference between parenting this baby and parenting any other baby. Parents need to learn a great deal about the impact of visual impairment on early growth and development, and they need to learn it early in the lives of their infants and preschoolers.

One group of professionals, the International Seminar on Preschool Blind, stated their position as follows: "Childhood blindness or impairment has an impact on the entire family system. Services should begin as soon as a vision

problem is diagnosed in order to encourage a child's development and to prevent or minimize secondary conditions such as withdrawal, stereotypic behaviors, school failure, and family stress" (Participants, XIVth International Seminar on Preschool Blind, 1990).

Selma Fraiberg, who conducted many projects on early intervention needs of families with infants and preschoolers, concludes:

"No educational strategies can succeed if a baby has not found meaning in his world through his human partners and if he is not bound to this world through affectional ties to his parents... When we first encounter these parents they are nearly always immobilized by grief and they are without hope... ..we were usually the first visitors to these mourning households who could say such things as, 'He's a fine baby,'...and apart from anything else we did for our families, we were often the first people in the lives of these young couples who cared about the baby, who talked to the baby, asked to hold him, admired his accomplishments, found him a person" (Fraiberg, S., Smith, N., & Adelson, E., 1969, p. 115).

Such high quality services should be available to all families. Students, their parents, and society as a whole are paying a price when these services are not accessible. Consider the results of a recent study: "Although the children with low vision tended to engage in levels of play behavior that were more advanced than children who were functionally blind, all the children in this study were performing at least 2 years behind in cognitive play as compared to sighted children" (Hughes, M., Dote-Kwan, J., Dolendo, J., 1998, p. 460).

Many states have mandated special education beginning at age three. Other states require services begin at birth or time of diagnosis. These provisions should assure that blind and visually impaired children reach kindergarten developmentally on the same level as their sighted peers. However, this will happen only if our educational systems provide well-qualified infant and preschool specialists who have a thorough understanding of the impact of visual impairment on early growth and development.

Conclusion

These nine issues constitute the foundations of education for students with blindness or visual impairment. This chapter emphasizes the similarities in the education of these students to that of all students, but it also acknowledges that there are specific and unique educational needs of students who are blind or visually impaired. All educational services throughout the country must recognize both

the similar and the unique needs of these students. Educational systems must provide the resources to meet both sets of needs.

A blind woman was once asked by a reporter what blind persons wanted from society. She said, "We want the opportunity to be equal, and the right to be different." This is the challenge for education. Educators must provide an educational environment that will offer equality for every student with a visual impairment while recognizing and providing for the unique learning needs of each student.

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2

Supportive Structure and Administration

Introduction

The purpose of this chapter is to be a resource guide for state and local education personnel and the supportive administration structures needed to support the unique needs of students who are visually impaired. This chapter outlines the roles of personnel and the supportive administration responsible to ensure that students with visual impairment are receiving an appropriate education.

The following eight (8) issues are identified and discussed in this chapter:

- Issue I** **State Education Agencies (SEA) should establish and maintain a unit to ensure that the provisions and policies related to students who are blind or visually impaired are implemented.**
- Issue II** **The State and Local Education Agencies should ensure that all education personnel have the specialized knowledge necessary to fulfill their roles relative to students who are blind or visually impaired.**
- Issue III** **The State Education Agency should examine the need to establish regional resources or collaborative projects within regions of the State.**
- Issue IV** **State and Local Education Agencies should ensure that each student will receive ongoing and appropriate assessment in order for the education team to develop and implement an individualized education plan.**
- Issue V** **State and Local Education Agencies must plan and implement strategies for the important transitions that blind or visually impaired students will experience throughout their**

education. A full array of placement options and a full continuum of services must be available to the student through each stage in order to provide an appropriate education.

Issue VI State and Local Education Agencies should ensure that visually impaired and blind students receive adequate resources and appropriate reading media on a timely basis, on schedule with their sighted peers.

Issue VII State and Local Education Agencies should utilize residential/specialized schools as a resource.

Issue VIII State and Local Education Agencies must assure that instruction for students with visual impairment or blindness will extend beyond the boundaries of the school and the school day.

Issue I State Education Agencies should establish and maintain a unit to ensure that the provisions and policies related to students who are blind or visually impaired are implemented.

There are many ways in which states organize the supervision of the education of students who are blind and visually impaired. Some states have commissions, some have advisory councils attached to the SEA, and some have low incidence task forces. Some states provide no supervision. Regardless of the structure, every state should establish a mechanism to ensure that monitoring and evaluation of these programs does occur. Every state should have a unit or a state consultant with a background in the education of visually impaired students whose primary responsibilities are to oversee and coordinate programs and services to students who are blind or visually impaired. Such a unit or person might be within the State Department of Education, within the school for the blind and visually impaired, within intermediate units or cooperatives established to meet the needs of low incidence populations, or within any other entity established for this purpose (Baker-Hawkins and Easterbrooks, 1994).

The State Education Agency is responsible for monitoring and serving as a resource to ensure that every blind or visually impaired child receives an appropriate education based on the child's assessed needs. In many states, especially those with extensive rural areas, special efforts are necessary to provide a continuum of placement options and appropriate support services. The coordinating unit in these instances has a responsibility to assist LEAs in acquiring appropriate services or in consolidating services across district boundaries.

Some rural areas lack expertise because of low student numbers and critical personnel shortages. SEAs must assist local education agencies by providing support through Intermediate Units, by developing cooperative programs between districts, by hiring regional vision consultants, or by encouraging other forms of intra-State regionalization.

Issue II The State and Local Education Agencies should ensure that all education personnel have the specialized knowledge necessary to fulfill their roles relative to students who are blind or visually impaired.

Pre-service Teacher Training

Educational outcomes for students who are blind or visually impaired are directly linked to the qualifications of the individuals working with them. Personnel working with this population should have the knowledge of the methods and educational resources needed by students with vision impairment, which differentiates their needs from those of other students.

Teacher training must be done within accredited programs. Even if the state does not have a federally funded project within local universities to train teachers of the visually impaired, each state needs to ensure an appropriate pre-service training program for teachers of the visually impaired. The number of blind and visually impaired children is adequate to justify the need for such training programs in many states (American Printing House for the Blind, 1997). In those few states with exceptionally low numbers of identified students, neighboring states can collaborate to establish a program which creates a critical mass of students.

Every SEA should have a system to certify teachers of the visually impaired. States should also ensure that their certification requirements are reciprocal with as many states as possible, so that they can freely recruit from a national pool. In addition, neighboring states should work with each other to support attendance at each other's training sites.

Inservice Training Needs

Every state needs an organized program of inservice training to bring needed skills to all educators and paraprofessional personnel. Many general educators will teach the child with a visual impairment in the public school over several years. While the teacher of the visually impaired will provide direct unique skill instruction, other school personnel must learn teaching strategies that address the needs of many students, including those who have visual impairments. All educators need to learn methods most useful in instructing a child who is blind or has low vision. They need to be informed about learning and reading media, basic

techniques in orientation and mobility, adaptive materials and devices for instruction and daily living, general guidelines on organizing direction and instruction, and strategies for assuring social and academic inclusion into the classroom environment.

An instructional aide or paraprofessional also may assist many blind or visually impaired students in the classroom. These employees are often untrained persons from the community who have been hired to assist, but do not have experience or preparation in the education of students with visual impairment. They too require training. While the teacher of visually impaired students can provide some training, the local school administration has a responsibility to make inservice training available for all staff involved in the education of visually impaired students. For more detail on preservice and inservice needs of paraprofessionals please see Chapter Five on Personnel Development.

Very often the blind student may be the only such student served by a district for a decade or two. It is not efficient or realistic to expect that each district then organize all of its own training needs on a case by case basis. The State Education Agency has a responsibility to organize inservice training for such personnel on a statewide or regional basis. Courses for continuing education credit can be arranged with local universities or community colleges, to assure adequate training for staff. They can also be held as evening classes or as intensive weeklong summer institutes. In addition, the teachers of the visually impaired must have ongoing inservice training to ensure that their skills with various sub-populations of children remain current.

Emergency Waivers

For decades there has been a national shortage of teachers of blind and visually impaired students. One recent study reports that nationally 38% of the teachers of the visually impaired were on emergency certification, which is 3-4 times the percentage for other disabilities (CEC Today, Jan/Feb '97 issue). However, issuing emergency certification and endorsements in the area of education of the visually impaired is not an acceptable means to ensuring appropriate personnel preparation in this area. When emergency status is used, the agency should require the local education agency (LEA) to acquire services from an individual who is credentialed and knowledgeable in the area until the staff member on emergency status is fully certified. A teacher who is certified under a waiver should be required to enroll in a credentialing program to receive a permanent certification. SEAs need to limit the length of the emergency certification and to discontinue the temporary certification if the teacher is not progressing toward permanent certification in a timely manner.

State Monitoring Function

Every student should have access to the expertise of qualified specialists. State monitoring procedures should assure that blind or visually impaired students have access to appropriate instruction at the local level (Policy Guidance, 1995). Although the Individuals with Disabilities Education Act requires that placement decisions be made based on the needs of the student as outlined in the IEP, instances still exist where children are placed in programs because the programs are readily available. Minimally, the monitoring process should verify that each student who is blind or visually impaired, including those with multiple disabilities, has appropriate services from a teacher of the visually impaired, and that the staff working with the student has had adequate training to assure appropriate content in their instructional programs. SEAs should therefore employ personnel trained in the education of the visually impaired to assure that the needs of the students are addressed in accordance with the law.

Knowledge and Skills

The knowledge and skills that should be addressed for a visually impaired student are outlined comprehensively in Chapters One and Four of this book, which include a description of the expanded core curriculum for blind and visually impaired students. Educational programs for students with visual impairments should include:

- 1) Instruction in the appropriate reading and writing medium (IDEA, 1997)
- 2) Provision of prescribed optical devices to make standard print and chalkboards accessible for students with low vision
- 3) Use of all appropriate adaptive aids, special devices, and assistive technology
- 4) Appropriate assessment and instruction in orientation and mobility by certified personnel
- 5) Student and parent counseling, as needed
- 6) Instruction in appropriate social skills and competencies (Blind students do not acquire skills through incidental learning)
- 7) Instruction in daily living skills and techniques (Not usually considered within the general curriculum for non-disabled children, instruction in daily living skills is necessary for the blind student.)
- 8) Opportunities for career exploration and vocational instruction (This population of students needs special assistance and encouragement in thinking about all possible career paths and opportunities for jobs.)

- 9) Strategies for participation in recreational and social activities of the school community, and the community as a whole (There appears to be little value in an inclusive approach to education if the student is not encouraged to participate in the social aspects of school life. However, the participation of the blind student in local activities does not always happen spontaneously. Rather, thinking, planning and instruction of parents, teachers, the student and his/her sighted peers is required.)
- 10) Instruction in study and organizational skills (Due to changes in media and formats, students need modifications in note-taking, and organization and retrieval of material.)

The skills and knowledge needed by educators who work with visually impaired students are significant and extensive. Therefore, personnel training programs must be comprehensive in order to prepare educators to adequately execute the students' IEPs. It is not enough to provide a Braillewriter and a cane. Administrators and direct service providers must consider all aspects of instruction that constitute an appropriate, individualized program.

Roles and Responsibilities

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In most school settings, the education of the child who is blind or visually impaired is influenced by several educators working interdependently: the teacher of the visually impaired, the orientation and mobility specialist, other special educators, the general educator, the instructional assistant and the building principal. Each of these people has important key roles in the education of the child.

- 1) Teacher of visually impaired students: carries out direct teaching of special skill areas, provides consultation to the classroom teacher and assistant, assesses the child, procures needed equipment and materials, acts as a liaison between the school and outside agencies, and trains staff.
- 2) Classroom teacher: plans and carries out direct teaching of the general curriculum, assesses the child, assists in coordinating the timely delivery of instructional materials, receives training, helps train other staff, and assures that appropriate classroom management strategies are used.
- 3) Paraprofessional: helps with teaching, makes information accessible to the child, assists with travel and safety, reinforces the teaching of the teacher of visually impaired students, makes and adapts materials, helps with social interaction, and enables the student to function in the classroom.
- 4) Braille transcriber: prepares curricular materials in Braille and other tactile formats.

- 5) The program administrator: promotes an accepting attitude in the school, approves all program changes, obtains needed personnel, organizes training opportunities for staff, contracts with consultants, approves materials and equipment purchases, and supervises all staff in their roles.
- 6) The Director of Special Education: manages all of the financial and contractual arrangements to assure the services are delivered.
- 7) Other special educators provide direct instruction and consultation for students with visual impairment and other disabilities.

This balance of roles has serious personnel implications. No individual service provider can assume the role and responsibilities of the others. Recent research supports the inappropriateness of relying on the aide to do the job of the trained teacher or specialist (Hudson, 1997; Giangreco, Edelman, MacFarland, & Luiselli, 1997). This research highlights the importance of having the instruction planned and executed by the trained professional. However, Giangreco (1997) demonstrates the more common practice of using the instructional aide to plan and conduct program activities.

Provision of an individual 1:1 aide by itself does not constitute adequate staffing. In some cases, a 1:1 is unnecessary and may even impede the development of independence. When such a position is needed, this service provider needs support, direction and supervision from trained staff. Schools have an obligation to recruit and employ trained personnel. SEAs are obligated to facilitate the recruitment effort for their local agencies. Hudson's book (1997) is an excellent resource for further study on the topic of roles in the school.

State and Professionally Recognized Standards

Education agencies should ensure that personnel who work with students who are blind or visually impaired meet not only state standards but also the standards set by national professional organizations such as the Council for Exceptional Children's Division for the Visually Impaired and the Association for the Education and Rehabilitation of the Blind and the Visually Impaired. Persons providing educational services specific to blindness and visual impairment and training in orientation and mobility must have completed an approved university training program in the appropriate areas, Blindness/Visual Impairment and/or Orientation and Mobility.

Issue III The State Education Agency should examine the need for regional resources or collaborative projects within regions of the state and should establish them when needed.

The number of students who are blind is very small in comparison with the general population of students (1: 1,000). This means that only one blind student may be enrolled in a school district every 20 or 30 years, and only one may be educated within an area of 100 miles or more. This low incidence is more likely in small communities and rural areas. In circumstances such as these, a school district may not elect to hire a specialist to serve the student. Even if districts choose to hire a specialist, they may not be able to fill the positions. Districts in more densely populated areas might hire specialists on a part-time contractual basis because they have few students with visual impairments. As a result, students may be instructed by part-time personnel who are not permanent employees of any agency, who do not receive benefits or retirement, and who eventually leave the field for more stable employment. More qualified teachers are needed in permanent positions.

One way to ensure services from permanent, qualified teachers of low incidence students (visually impaired, hearing impaired, deafblind, etc.) is for teachers to be employed by county units, intermediate educational units, or cooperatives. Specialists who serve a region can travel to communities that are close together. This model creates full-time jobs for qualified professionals, and brings the expertise to the student and professionals who need it. Regional services also increase the likelihood that teachers can combine forces for inservice training, share information on successful teaching methods, and provide mutual support. Regional services also make it easier to arrange social and recreational activities for students with low incidence disabilities. Seminars on specific topics such as sex education or career planning can be held for groups of students with similar needs.

Without collaboration among regions, blind students may not have access to qualified teachers, role models, or peers with similar disabilities. Supporting and funding Instructional Materials Centers that serve within regions is a practical example of a State sponsored regional activity that is particularly important for visually impaired students who may need materials in another format or medium.

Issue IV State and Local Education Agencies should ensure that each student will receive appropriate assessment in order for the education team to develop and implement an individualized education plan.

The education team must have information from a comprehensive assessment to develop and implement an individualized educational plan for a student. A student who is blind or visually impaired must be assessed by licensed professionals who are knowledgeable about vision impairments and their functional, developmental and educational implications (see Chapter 3 for details). When appro-

prate personnel are available within the LEA, it is possible to carry out the assessment of the student without assistance from outside the district. However, when a district does not employ a person who is qualified to assess a student with vision impairments, a qualified professional from another agency must be employed. In many districts, a visually impaired student may need to be referred to out-of-district specialists for a comprehensive assessment or for a second opinion that can be considered along with the internal team's opinions.

Ongoing assessment of the child is needed for several reasons. Visual impairments are rare within the general population of children, and they result from a variety of causes. The team should include a professional who has a broad understanding of the etiology of each of these conditions and the effect they have on the child's vision. Vision can range from partial sight to low vision to total blindness. Variations in vision can occur along with other disabilities. Vision loss can be progressive and vision can deteriorate over time. A change in the child's reading medium may be necessary. The student may need training in mobility or daily living skills or need adaptations in instructional methods. Ongoing assessment can identify these changes as they occur so that adjustments in the educational plan can be made in a timely manner.

Ongoing assessment can also help the educational team to monitor the child's progress. By reviewing the situation, the educational team can assure that the child has complete access to materials, can fully participate in class, and has adequate instructional time from specialists such as the teacher of visually impaired students and the instructor of orientation and mobility. The assessment process may also guide the team in determining the appropriateness of the current placement.

Issue V State and Local Education Agencies must plan and implement strategies for the important transitions that blind or visually impaired students will experience throughout their education. A full array of placement options and a full continuum of services must be available to the student through each stage in order to provide an appropriate education.

There are important periods of transition in the development of a visually impaired child that require support from the school system such as early intervention services for preschoolers and as the child moves from preschool to elementary school. The school system must be aware of visually impaired children who will be enrolled, including those with additional disabilities. The school system must plan to meet the child's educational needs for full inclusion. School administrators must assure that the school staff is trained, the curriculum is accessible, and the environment is conducive to learning.

Elementary to middle school or junior high school is another important point of transition for children with disabilities. In many cases, the student will have a different teacher and classroom setting for each subject after elementary school. Therefore, a larger group of teachers will need assistance, resources, and training. One educator usually serves as case coordinator. The itinerant teacher of the visually impaired often assumes this role for every child on his or her caseload. Because teachers of the visually impaired are seldom in the school building, another faculty member in the school may be a more appropriate case coordinator.

Transition to Work or Higher Education

The transition of a student from high school to work or higher education can be both exciting and stressful. Parents and school personnel must provide encouragement and support during this time and must not put limitations on the student because of his/her visual impairment. As society recognizes that a person's disability need not determine an individual's capacities and talents, an ever-increasing array of career opportunities exists for the visually impaired student. Career education and exploration must be included in the individual educational plan of every teenage student. Preparation for a career may include career awareness activities, instruction on job seeking skills, job maintenance, work experiences during the school years, involvement in career seminars or conferences, college preparation activities, exposure to various career settings, and contact with blind adults who are positive role models. Higher education, worthwhile work, and a productive and independent life should be expected of the student who is visually impaired, just as they are of the sighted student. For those students who have additional disabilities, transition into appropriate adult services will require careful planning with an understanding of individual strengths and needs. Other agencies must be involved in planning for students. For other students, supported employment and assisted living centers may need to be considered.

Placement-neutral Funding

In making an array of placement and service options available, the State Education Agency should also establish a system of financial support that truly reflects a placement-neutral funding approach. The consideration of whether a student should be served in a fully-inclusive setting, in a special day class in the neighborhood school, or in the state operated or private specialized school, must be made independent of funding. In current practice, a residential program which may be expensive for an LEA may not be considered—even if it is the most appropriate placement for the student. Frequently, students with low incidence disabilities are more costly to educate in any placement. To comply with federal law, decisions must be driven by need rather than cost. In the spirit of offering a free, appropriate public education for all, states must make these added costs tolerable for local communities.

Issue VI State and Local Education Agencies should ensure that visually impaired and blind students receive adequate resources and appropriate reading media on a timely basis, on schedule with their sighted peers.

To receive an appropriate education, students who are blind or visually impaired must have maximum access to the general curriculum. Materials need to be accessible for all areas of instruction. The student's reading medium will depend on the results of a learning media assessment and the decisions of the educational team.

Adapted materials may include:

- Brailled texts and electronic paperless, refreshable Braille
- Large print texts
- Braille writer/slate and stylus
- Access to the internet and web
- Talking books/recorded books/electronic texts
- Math manipulatives/accessible calculators/abacus
- Tactile graphics/maps
- Adapted technology such as Closed Circuit Television (CCTV), voice output, software and hardware, scanners, personal notetaking devices such as Braille Lite or Braille and Speak, Braille embossers, Braille printers, Internet access
- Learning aids and large print tools
- Low vision devices as prescribed by an ophthalmologists or optometrist

A teacher of the visually impaired can help to identify the materials and tools each child will need. Adaptive materials and equipment should be available for use at home as well as school. Parents should understand and support their use in home and school.

The timely availability of appropriate instructional materials is a basic educational right that should be included in the Individualized Education Plan. A child who is blind or visually impaired should begin the school year with the materials and texts that are needed to participate with their peers in the regular curriculum. When materials arrive late, the student is not truly included in the class and learning is delayed. The teacher of visually impaired students must, therefore, arrange far in advance for these materials. The school administrator is responsible for assuring that materials are provided on a timely basis.

The State Education Agency also is responsible for assuring that the student has the necessary materials. Many states have an instructional resource center from which schools can access or borrow texts, materials, equipment and other adaptive devices, including materials from the American Printing House for the Blind. It is often more efficient to organize this function at the state level. States should coordinate the acquisition of materials, including those purchased through the quota system of the American Printing House for the Blind.

Issue VII State and Local Education Agencies should utilize residential/specialized schools as a resource.

During the first half of the twentieth century, residential/specialized schools provided the primary educational opportunity for blind children. Today there are many options for public and private educational placements in the United States. Most children with visual impairments are now included in general education settings. Only 8% of students with legal blindness are educated in specialized schools (American Printing House for the Blind, 1997). Some specialized schools have expanded to serve students with visual and multiple disabilities, and they may also offer services to students who are in general education programs. In many states, specialized schools are a resource for expertise and specialized knowledge about the education of children with visual impairments. They continue to serve students with highly individualized educational needs or those for whom there is no appropriate local service option.

Many residential/specialized schools have developed outreach services to assist local communities. The administrators of outreach services in these schools have developed a national network through which professionals exchange information and offer training activities to improve services to students who live in their regions. Outreach services have become a resource for families, agencies, and local school districts.

Many residential/specialized schools also provide activities for the students who attend public schools. These activities may include specialized curricular offerings as well as social activities. Frequently, specialized schools offer courses in some instructional areas that the local schools cannot address comprehensively. For example, residential/specialized schools have offered courses in career exploration, adapted physical education, latest technologies for the visually impaired person, sex education, and social development. Some schools offer enrichment activities such as sports competitions for the blind, camping, drama, music, art, space camp, group travel, and other activities that are adapted for the child who is blind. In addition, many specialized/residential schools conduct comprehensive assessments for students served statewide.

Schools for the blind and visually impaired also create partnerships with parent organizations to coordinate conferences and workshops. Family members have the opportunity to learn from professionals and other experienced parents about their child's developmental, educational and social needs. As such, the schools become learning and resource centers which provide for all aspects of education for blind children, including those who have multiple disabilities. Through national networking, school staffs are made aware of the latest methods, technologies and services and provide inservice training courses for teachers of the visually impaired in local agencies.

State education agencies should encourage statewide access to the resources of the residential/specialized schools to provide support for the education of blind and visually impaired students. School administrators should consider the School for the Blind as a resource where specialized knowledge is available to assist local professionals in serving visually impaired students. They should inform all families with students who are visually impaired of outreach activities, conferences, and opportunities for public school students that are provided by specialized schools. Likewise, administrators of specialized schools must assure that their services address the needs of the students throughout their state.

Issue VIII State and Local Education Agencies must assure that instruction for students with visual impairment or blindness will extend beyond the boundaries of the school and the school day.

Students with visual impairments need knowledge and skills that are similar to those needed by their sighted peers. This instruction can usually be carried out in the regular classroom or in other traditional learning environments. The visually impaired student is learning by accessing an adaptation of the general curriculum for all students.

However, the student who is blind or visually impaired has instructional and learning needs which often exceed what can be taught in the classroom. Instruction in orientation and mobility may take place throughout the school building or in the community. Some mobility instruction may be needed in and near the child's home. Others may need mobility instruction at night if their eye conditions create specific visual limitations after dark. Most students who are blind or visually impaired need instruction in daily living skills, which may best be taught in the settings in which cooking, dressing, and grooming typically occur. The student may need assistance in participating in many of the recreational and social activities which happen outside of the classroom. Aspects of vocational training, work experience, and use of community resources can best be provided in real employment sites in the community.

Many students who are blind or visually impaired learn better in natural settings than they do from talking about things, which they have not experienced. Therefore, the blind child needs to be educated holistically with training provided in social skills, adaptive skills, leisure and recreational skills, vocational skills and academic skills. The need for this broadbased instruction reaffirms the importance of understanding, flexibility, and creativity on the part of the school administrator. Educating the child who is visually impaired means making time to arrange learning experiences, understanding the reasons for these experiences, exercising patience in developing a schedule, and accepting some forms of non-traditional instruction. For teachers of students with visual impairments, flexible schedules to provide services outside the typical school day are needed.

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3

Assessment

Introduction

"Most children learn incidentally, without specific instruction, because they have watched someone else do something, or because they associate what they have seen with what they have heard. Children with blindness and visual impairment do not have this advantage and often must be specifically taught what other children learn incidentally" (Ferrell, K., 1997, p. v).

Assessment is required by law to establish a child's eligibility for special education, to maintain that eligibility, and to determine the child's instructional needs. Students with visual impairments are usually identified through a process which includes consideration of medical and ophthalmological information, and a functional vision assessment which describes how the visual impairment impacts development and learning. The types and amount of service a visually impaired student requires, the educational setting where services will be delivered, and the specific skills and concepts the student needs to acquire should all be addressed through assessment.

For students with visual impairments, including those with multiple disabilities, a comprehensive assessment procedure should accurately describe the student. Information obtained from the assessment must be easily translated into educational practice which will allow the student to progress to the best of his or her ability. For the student with a visual impairment at the pre-school level or for one transitioning into elementary, secondary, or adult education, the assessment procedure must consider the following:

- medical, developmental and academic areas,
- unique skill needs of compensatory academic skills,
- reading and writing skills,

- independent living skills,
- orientation and mobility skills,
- visual efficiency skills,
- social interaction skills,
- recreation/leisure skills,
- career education, and
- use of technology (Hatlen, 1996).

No one test or individual person can be used to provide the broadbased information required for a complete assessment. Assessment is a comprehensive, ongoing process that involves the coordination and collaboration of parents, caregivers, the student, school psychologists, ophthalmologist, optometrists *and* clinical low vision specialists, general and special education teachers, certified orientation and mobility specialists, teachers of the visually impaired, and others, as needed. Speech therapists, physical therapists, occupational therapists, adapted physical education teachers and assistive technology specialists may contribute valuable information and in some cases should be members of the assessment team. Anyone who is in contact with the student with a visual impairment is a potential source of information.

Test materials should be both accessible and meaningful. In instances where there is concern about the appropriateness of available, standardized assessment materials, alternative techniques, including ecological, naturalistic, or situation evaluation techniques should be considered. These alternate testing procedures should be carried out by professionals skilled in the education of individuals with visual disabilities. A student's ability to answer questions correctly in a test situation or in a classroom may not indicate the ability to use a skill in daily life.

Norm referenced testing can give information about the student's strengths and needs in comparison with others of similar ages or grade. However, these tests are usually not normed for students with visual impairments and must be supplemented with specific information from criterion-referenced and curriculum based tests, informal assessment procedures, and observation.

Issue I Educators should assess students with visual impairments as individuals. They should assess compensatory skills and educational achievement as well as areas of need that are unique to visual impairment.

Issue II Individuals involved in administering assessments to students who are visually impaired must be knowledgeable about the effects of a visual impairment on learning, should

work closely with personnel who are proficient in the student's reading and writing medium (Braille, large print, or print with low vision devices), should assure appropriate and meaningful testing, and should report student results in accurate and useful ways.

- Issue III** The progress of students with visual impairments should be carefully monitored through a system that reflects the recognition of the unique nature of visual impairments.
- Issue IV** Educators should recognize the need for on-going assessment of the progress of students with visual impairments with consideration given to the interaction of functional vision, additional disabilities, environmental factors, learning strategies, unique skill needs, and academic skill attainment.
- Issue V** The learning and literacy media assessment of students with visual impairment should be conducted prior to program planning.
- Issue VI** Evaluations of infants, children and adolescents should be completed through a partnership of parents and professionals and should provide parents and professionals with the information they need to make appropriate decisions for the child.

Assessment

Issue I Educators should assess students with visual impairments as individuals. They should assess compensatory skills and educational achievements as well as areas of need that are unique to visual impairment.

Students with visual impairments must be assessed as individuals. The only characteristics they may have in common is a visual limitation. Variations in acuity level, field of vision, and eye anomalies that can affect learning make assessment unique for each individual. The factors listed below should all be considered when assessing a student with a visual impairment:

- Visual etiology
- Age at onset of visual impairment
- Other disabilities
- Medical conditions
- Resources available to student and family

- Cultural characteristics such as language and experience
- Student's age and academic grade
- Physical and psychological maturity
- Skill acquisition
- Community involvement
- Environmental settings
- Individual preferences

A comprehensive assessment of a student with a visual impairment should include academic achievement, as well as areas of need that are unique to the student with a visual impairment, known as the Expanded Core Curriculum. These unique areas include recreation and leisure skills, orientation and mobility, social interaction skills, independent living skills, visual efficiency skills, career education, technology, and compensatory academic skills, including communication modes (Hatlen, 1996). Components of a comprehensive assessment for a student with blindness or visual impairment, as suggested by Scholl, G. (1986) include:

Vision

- Eye examination by an ophthalmologist or optometrist
- Functional vision assessment
- Assessment of visual efficiency
- Low vision aids evaluation

Intelligence/Aptitude

- Cognitive development
- Intellectual functioning

Sensory/Motor Skills

- Gross and fine motor development
- Perceptual learning

Academic Skills/Concept Development

- Achievement in reading, writing, spelling, mathematics
- Language development
- Listening and auditing skills
- Concepts: temporal, quantitative, positional, directional, and sequential
- Study skills

Social/Emotional/Affective

- Behavioral control
- Social and affective learning
- Adaptive living skills
- Recreation and leisure skills

Functional Living Skills

- Daily living skills
- Orientation and mobility skills
- Community travel and use
- Career and pre-vocational skills (p. 48)

Issue II Individuals involved in administering assessments to students who are visually impaired must be knowledgeable about the effects of a visual impairment on learning, should work closely with personnel who are proficient in the student's reading and writing medium (Braille, large print, or print with low vision devices), should assure appropriate and meaningful testing, and should report student results in accurate and useful ways.

The expertise of most school personnel, including school psychologists, does not include training that will allow them to modify assessment instruments and test procedures for students with visual impairments or to distinguish between the effects of the student's visual impairments and the influence of other factors on test performance. Few commercial tests are standardized for use with students with visual impairments. For these reasons it is imperative that a certified teacher of visually impaired students serve as the co-leader of the assessment team to assure that the needs of the student are recognized during the assessment procedure and that the information acquired through assessment accurately reflects the student's ability and the effects of the visual impairment.

When a student with a visual impairment enters a school system, professionals with appropriate expertise may not be available to assess the student. The school district must find a teacher certified in the education of visually impaired students or a psychologist trained to assess visually impaired students to assist the evaluation team. Other Local Education Agencies (L.E.A), the State Education Agency (S.E.A.), the state vision consultant, a special school, or agencies that serve individuals with visual impairments may be able to provide the necessary service or assist in locating appropriate resources. Often evaluators must modify the administration of tests, change the medium of the test, modify or eliminate specific test items, analyze results using norms that do not represent visually

impaired students, or interpret students' responses in light of their visual impairment. In analyzing and reporting results of assessment instruments that have been modified, the evaluator must describe any accommodations or modifications that were used and qualify the results of the assessment as necessary, because of these changes.

If the district is unable to provide a qualified team or additional assessment is needed, use of a specialized transdisciplinary team should be considered. This team should include several individuals with training in education or assessment of students who are visually impaired, including those students with additional disabilities. Team members should have the opportunity to meet face to face to share and discuss their findings before making recommendations. Some schools for the blind and visually impaired have such teams and offer evaluations as a service to local school districts. Other agencies that serve students with visual impairment and university training programs may also offer this type of service.

Students with visual impairments are usually not included in norm groups when norm referenced tests are developed. Any standardized test that has been developed for a sighted population may lose validity and reliability when it is transcribed into Braille or large type or altered in any other way. However, it is often necessary to alter tests to allow visually impaired students to take them. In determining the appropriate accommodations for a visually impaired student on assessments, educators must take into account the accommodations listed in the student's IEPs as well as modifications in test administration that are allowed, as stated in the administration manual of the test. The Individuals with Disabilities Education Act, 1997 Amendments requires that each student's individual education program include "a statement of any individual modifications in the administration of State or district wide assessments of student achievement that are needed in order for the child to participate in such assessment. If the I.E.P. team determines that the child will not participate in a specific State or district wide assessment of student achievement (or part of such an assessment), a statement of why that assessment is not appropriate for the child; and how the child will be assessed." (Individuals with Disabilities Act of 1997, 20 U.S.C. Chapter 33)

In reporting the results of the assessment procedure for students with visual impairments, educators and administrators must assure that information is reported accurately, with attention given to the modifications needed to allow the student to complete the assessment. Results should be carefully recorded to reflect the best efforts of the student without penalty to the student (e.g., denying needed modifications). The report of the results should also describe modifications used by the student, and the purpose and intent of the particular assessment procedure. Test results must be reported with caution and state that the test was

normed on a different population. Reporting test results using the standard error of measurement and giving results in terms of a range of performance instead of a single score are recommended to increase accuracy (Bradley-Johnson, 1994).

In the Braille or large print production of standardized tests and statewide assessments, or the development of alternate assessments at the state and district level (a requirement of IDEA, 1997), education personnel must consider the unique needs of students with visual impairments by:

- 1) Analyzing test items and format for appropriate production into Braille and large print (for example, a test item may contain an entire table of contents and a question about the table of contents on one page. The table of contents may need to be shortened to fit on the Braille page).
- 2) Assuring that items on the test are testing the intended competency and that the completion of the test item is not based on visual perception, visual experience, or understanding based on visual experience.
- 3) Reviewing test items for applicability to students with visual impairments. For example, a test item that requires drawing a design or shape would be inappropriate for a Braille reader and might be a difficult task for a student with low vision.
- 4) Reviewing multiple choice items to insure that answer choices are still appropriate after the test item is altered. For example, items testing a student's ability to estimate may include graphics that are no longer viable answer choices when enlarged.
- 5) Considering use of alternative test items for students with visual impairments that are meaningful. For example, substituting a test item where the student describes the layout of a building rather than reproducing the layout.
- 6) Considering the use of testing procedures to limit or eliminate the need for accommodations or modifications for individual students with visual impairments. For example, providing an untimed test for all students so students who need extended time are accommodated without concern for test reliability.
- 7) Providing practice materials that will allow visually impaired students to become proficient in the use of test formats.
- 8) Reviewing tests with graphics to insure that lines can be detected and diagrams are labeled in the appropriate places.

Issue III The progress of students with visual impairments should be carefully monitored through a system that reflects the recognition of the unique nature of visual impairments.

"Educational goals for students with visual impairments are essentially the same as those for all students. The goals are: effective communication, social competence, employability, and personal independence. In order to accomplish these goals, however, students with visual impairments require specific interventions and modification of their educational programs. An appropriate assessment of these unique educational needs in all areas relative to the disability and instruction adapted to meet these needs is essential to ensure appropriate educational programming" (Crane, Cuthbertson, Ferrell, Scherb, 1997, p. 116). While long range goals may be the same, short-range goals and objectives that are developed for a child with a visual impairment may be different and will often address areas that are identified in the Core Curriculum. The progress of students with visual impairments should be carefully monitored through a system that reflects the recognition of the unique nature of visual impairments.

A system for assessing student progress is required in the reauthorization of IDEA and is critical to the overall success of an educational program for students with visual impairments. In establishing this system, educators will need to consider state proficiency tests that are required for promotion or graduation, standardized tests used by states and local districts for accountability purposes, tests or assessments for students with visual impairments, informal assessments used in the classroom, and unique tests that are performed for specific purposes such as determining visual or orientation and mobility skills. The assessment system should include all types of measures that are appropriate to the individual student.

This assessment system should include an initial evaluation to develop a profile of the student's levels of performance, strengths and areas of need. A review of available medical information and audiological assessments may suggest the need for further medical evaluation. Students who require medical management and/or have physical restrictions due to eye or other medical conditions should be monitored on a regular schedule by the appropriate health professional and communicated to the educational team.

Information from several sources will be needed to determine the types of intervention, services and programs that will allow the student to progress at an appropriate pace. On-going assessment should also be carried out to document progress and uncover situations where progress does not match the student's potential and services need to be changed. The student's mastery and use of the reading and writing medium that has been selected, use of technology and

adaptive equipment, progress in orientation and mobility, and independent living and social interaction skills should be evaluated on a regular basis. In addition, the student's feelings about his/her success should be considered.

Standardized testing should be supplemented with specialized testing and the informal assessments where appropriate. Mandatory state and local assessments that include all students may be valuable sources of information on the progress of visually impaired students if appropriate accommodations or alternate assessments have been provided.

Issue IV Educators should recognize the need for on-going assessment of the progress of students with visual impairments with consideration given to the interaction of functional vision, additional disabilities, environmental factors, learning strategies, unique skill needs, and academic skill attainment.

The assessment procedure must include consideration of the student's functional vision and educational progress as each are affected and influenced by environmental factors (such as classroom setting, community setting, home setting, work setting). Some students may have stable vision, but their functioning may be affected by external environmental factors. Other students may have fluctuating or diminishing vision due to a progressive condition. Learning strategies that could assist a student's inclusion in the regular education classroom should be explored and implemented when appropriate. Any modifications or accommodations to the curriculum, instruction, or classroom assessment should be identified, reported on the I.E.P. and implemented completely. Teachers, parents and other school personnel should observe students and note factors that need future consideration. Evaluations for non-English speaking students should be conducted in their native language.

Issue V The learning and literacy media assessment of students with visual impairment should be conducted prior to program planning.

"Learning media assessment is an objective process of systematically selecting learning and literacy media for students with visual impairments. This assessment process guides the educational team in making deliberate and informed decisions on the total range of instructional media needed to facilitate learning for students with visual impairments. Learning media assessment, when used in a meaningful and holistic manner, will provide the information needed to develop appropriate educational programs for all students, regardless of level of vision or severity of additional disabilities. Learning media assessment encompasses general learning media and literacy media. General learning media include both instructional materials (such as pictures, rules, worksheets) and instructional methods (such as

demonstrations, modeling, and prompting). Literacy media include the range of tools for reading and writing in print and Braille” (Koenig, A., & Holbrook, M., 1995, p. 2).

Evaluation should be carried out to determine general learning media for all visually impaired students. The student’s use of sensory channels, including the sense that is used as a primary channel and the sense that is used as a secondary channel, should be systematically evaluated. A learning media assessment is a necessary step in the process of selecting the most effective instructional media and methods for each visually impaired student, including those with multiple disabilities. In addition, clinical and functional low vision evaluations, which yield valuable information for the learning process should be conducted for all students with visual impairment.

As a part of a learning and media assessment, the student’s style and preferred mode of communication skills should be evaluated. Signing, tactile symbols, picture symbols, computerized systems and adaptive equipment may enable some students to communicate and should be considered.

As preschoolers, visually impaired children should be assessed on preliterate skills including tactile sensitivity, fine motor coordination, and relative strengths in visual, auditory or tactual modes. If it is determined that a student is not ready to read, the student should be reassessed for a reading medium when the developmental level advances and readiness activities have been taught.

When the student with a visual impairment is ready to read and write, an assessment to determine the most appropriate and effective reading and writing media for literacy will be required. One reading medium may be preferred over another. For example, a student who is totally blind will usually read using Braille. Other students who have some vision may need careful and on-going assessment of their reading and writing modes to determine whether Braille, large print, regular print, accommodated print using low vision devices, an auditory medium or a combination of these is appropriate.

The Individuals with Disabilities Education Act, 1997 Amendments, requires that “The I.E.P. team shall, in the case of a child who is blind or visually impaired, provide for instruction in Braille and the use of Braille unless the I.E.P. team determines, after an evaluation of the child’s reading and writing skills, needs, and appropriate reading and writing media (including an evaluation of the child’s future needs for instruction in Braille or the use of Braille), that instruction in Braille or the use of Braille is not appropriate for the child” (Individuals with Disabilities Education Act of 1997, 20 U.S.C. Chapter 33). Many states now have Braille laws. Administrators must be aware of the requirements that are included in their states’ Braille laws.

Many factors may be relevant in determining what medium of instruction is appropriate for each student: print or Braille or Braille and print together.

visual acuity	fatigue
contrast sensitivity	tactile sensitivity
color vision	fine motor coordination
visual field	strengths in visual, auditory or tactual modes
visual efficiency	developmental level
family preferences	motivation
visual prognosis	future transition from
fluctuations in vision	portability of reading materials print to Braille
reading speed	emotional and social factors
size of print or the accommodation needed	

If the student has vision, the assessment of literacy media should include a clinical low vision evaluation that provides recommendations for low vision devices that could be appropriate for the student. A teacher of the visually impaired should also conduct a functional vision evaluation in various environments. Information from a functional vision evaluation will augment information from the clinical low vision evaluation.

Adequate information about the advantages of Braille and low vision devices and other appropriate media should be provided to families and all service providers. Information from the evaluations to select learning and literacy media, including clinical and functional low vision evaluations, will be needed for program planning and should precede the development of the I.E.P.

Listening, as a mode of reading, should be used as a supplement to tactual or visual access of written material. It may be appropriate as the primary means of access for some visually impaired students with severe cognitive, motor and/or tactual impairments or, temporarily, for individuals who have recently incurred visual impairments. Many visually impaired students will need instruction in listening as an additional mode of accessing printed material. The individual's ability to listen effectively and efficiently should also be evaluated and considered during program planning.

Issue VI Evaluations of infants, children and adolescents should be completed through a partnership of parents and professionals and should provide parents and professionals with the information they need to make appropriate decisions for the child.

Evaluations should be accomplished through a partnership of parents and professionals. Parents should receive in their native language adequate information about all aspects of the evaluation process and how the information will be used. Parents should review the components of a comprehensive assessment and be involved in the process of determining the appropriateness of each component for their child. They should be involved in the choice of an evaluation team and should receive information about the testing procedures and the assessment instruments that will be used. Parents should contribute information to the evaluation through questionnaires, checklists and scales, and should be asked for their observations and acknowledged as a vital source of information. Professionals should honestly and clearly report test data and summarize it for parents. Parents should have the opportunity to review and discuss results of the assessments and the recommendations with the educational team. Parents should be able to clarify with the professionals who conducted the tests all components of the assessment. As a result of the assessment, parents must be provided information about services that will be needed to maximize the student's educational potential. Parents should also receive complete and understandable information about services and placement options. In addition, the visually impaired student should have an important role in decision making. Including the student in decision making at the appropriate age helps build understanding of strengths and limitations, accountability, and the advocacy skills that are important to future independence.

Comprehensive evaluations of the visually impaired student frequently occur at critical stages in the student's development. The results of the assessment of an infant or young child often determines eligibility for specialized services and programs and provide the parent with the necessary information to become their child's primary teacher. Later assessments are the basis for the individual educational programming, and are used to determine the student's educational needs. Re-evaluation throughout the educational process is used to monitor progress, assure attention to the student's changing needs and evaluate the student's achievement in reference to the achievement of his or her peers. In the later stages of the student's educational career, assessment plays an important role in the student's transition from school to the adult world, by giving information on ability, aptitudes, preferences, motivation and skills.

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4

Program Requirements and Placement Options

Introduction

This chapter presents several of the critical issues for persons who are responsible for the development and implementation of services to students who are blind or visually impaired. Its purpose is to direct the reader's attention to issues and items that are important and frequently overlooked during the development of the student's IEP. It does not advocate any specific type of program or placement, but rather supports the concept of a full array of options based on individual student needs. The following eleven issues are discussed:

- Issue I** **Determination of an appropriate educational setting must be based on the identified needs of students who are visually impaired throughout their educational development.**
- Issue II** **Educators must work with the family and student as collaborative partners in developing programs and IEPs and in making placement decisions.**
- Issue III** **Any appropriate placement option recommended by the IEP team must be made available to the student.**
- Issue IV** **An expanded core curriculum for students with visual impairments is necessary and should be provided to insure an equal opportunity for learning in general education.**
- Issue V** **Educators must ensure that students receive appropriate opportunities to learn from role models and mentors who are blind or visually impaired.**

- Issue VI** Educators must ensure that students receive appropriate opportunities to participate with peers who are blind or visually impaired, as well as with those who are sighted.
- Issue VII** Educators must ensure appropriate mentoring and professional development opportunities for beginning teachers of students with visual impairments.
- Issue VIII** Educators must encourage extracurricular experiences for students who are blind or visually impaired.
- Issue IX** Educators must provide equal access to materials and resources to ensure equal educational opportunities for students with visual impairment.
- Issue X** Educators must ensure the availability and use of assistive technology for students who are blind or visually impaired.
- Issue XI** A student who is visually impaired and has multiple disabilities is entitled to specialized services provided by professionals trained in working with students who are blind or visual impairment.

Issue I Determination of an appropriate educational setting must be based on the identified needs of students who are visually impaired throughout their educational development.

Determining an appropriate educational setting may be the most crucial decision to be made by the Individualized Education Program (IEP) team other than identifying a student's eligibility for special education services. The challenge is to select a placement which complies with federal and state mandates for "Least Restrictive Environment" (LRE) and is appropriate for addressing the needs of the student. This must be a joint decision based on input from the student's family as well as from school personnel. When this decision is based upon the identified needs of each student, the service-delivery model chosen will be the most appropriate placement for that particular student.

The Individuals with Disabilities Education Act (IDEA) as reauthorized in June, 1997, emphasizes that LRE is not a physical location. Rather, it is a set of services designed to enable children with disabilities to succeed in the educational setting that is appropriate for their individual needs. For some, the most appropriate placement may be a regular education classroom with the provision of support and related services as needed. A special school employing specially prepared teachers and support personnel will be the most appropriate for other students.

For many, the appropriate placement may be a combination of settings. The most appropriate placement must be determined at least annually at the IEP meeting and could change from year to year depending on the needs of the student. Viewed in this perspective, all of the placement options identified later in this document are appropriate for certain students with visual impairments, and all are in compliance with federal and state mandates regarding LRE.

Every student with a visual impairment has varying educational strengths, weaknesses and needs. These needs change and evolve as the child develops and learns. Changes may be due to fluctuations in vision, transitions to new environments, and challenges that result from maturation.

Other factors which may play a role in determining the most appropriate placement include the student's needs for:

- alternative learning media such as Braille
- enlarged visual images and/or audio recorded materials
- skills in personal care and independent living
- orientation and mobility
- training in the use of assistive technology

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In addition, the impact of additional disabilities may influence the selection of the appropriate placement. To determine the educational needs of children with identified visual impairments, an assessment of their social, vocational and independent living skills is necessary as part of the educational assessment. For these and other reasons, changes in placement for limited or set periods of time may be a recommended intervention for mastery of certain disability-specific skills. It is important to remember that:

- 1) At every IEP meeting, the full array of placement options as indicated in the Policy Guidance (Appendix A) should be presented to all parents.
- 2) When appropriate, students should be included in all educational decisions.
- 3) All children who have a visual impairment that affects learning need to receive educational services from educators who are prepared in the field of visual impairment and blindness.

Issue II Educators must work with the family and student as collaborative partners in developing programs and IEPs, and in making placement decisions.

Families of students with visual impairments are the primary stakeholders in their child's development. An education that enables these children to succeed as

adults depends on the premise that families are the most significant influence in the life of a child, with or without visual impairments. An effective local educational system is committed to the beliefs that a partnership among school professionals and parents is vital, and that parents' understanding of their child's strengths and weaknesses is paramount in building a productive education plan. Schools which value parents as equal partners with professionals are in the strongest position to achieve the child's educational objectives.

The school system can work more effectively with families if family members have accurate educational information, understand decision-making processes, and are familiar with state regulations and the provisions of IDEA. States usually enact specific rules and regulations that are based on IDEA. In order for parents to be equal partners in the IEP and placement processes, they must know what is available and have accurate information regarding placement options. Through the IDEA Amendments of 1997, many sections of the law have been strengthened. Some features particularly address the education of students with visual impairments:

- 1) As members of the IEP team, parents are essential in developing the IEP and in determining annual measurable goals and short-term objectives. Their participation is as critical to the process as the input from all other team members.
- 2) Parents are advocates for their child and can educate other family members and friends about the unique needs of children with visual impairments.
- 3) Parents must be aware that placement is the last decision made at each IEP meeting.
- 4) Children with a visual impairment are considered to have a visual impairment requiring educational intervention only if they require adaptations for learning, as determined by an educational assessment. Only then can the child's educational needs be determined and placement options be discussed.
- 5) A student's need for a particular skill will be affected by that student's level of visual functioning, chronological age, age at onset of the visual impairment, motivation, cognitive ability, presence of other disabilities, and previous experiences. The student's transdisciplinary assessment team should address each area. The IEP team is responsible for determining the relevance of skills based on the information provided by the assessment team.
- 6) Educational goals and objectives that meet disability-specific needs are determined before placement. Parents must be informed of the availability and nature of the continuum of placement options. The options include "instruc-

tion in regular classes, special classes, special schools, home instruction and instruction in hospitals and institutions” (Policy Guidance, 1995). Resource room services or itinerant instruction for those in regular classes continue to be the most common setting. However, placement in the least restrictive environment (LRE) is always determined as a product of student needs.

- 7) Instruction in Braille and the use of Braille must be considered unless the IEP team determines that it is not appropriate after an evaluation of the child’s reading and writing skills. The child’s future needs for instruction in Braille should be considered when making this decision.
- 8) For visually impaired students, related services may include orientation and mobility (O&M) services provided by certified personnel. This ensures that the student can maintain orientation and move safely in school, home, and community. Other related services, such as occupational therapy or rehabilitation counseling, may be necessary as indicated by the IEP.
- 9) The IEP team will establish a school-to-work or higher education transition service plan for the student at least by age 14, preferably earlier.
- 10) The term “parent” includes a legal guardian or a surrogate parent.
- 11) Parents must be integral members of any group that makes placement decisions.
- 12) All information to parents must be made available in the family’s native language. Individuals who are deaf, blind, or have no written language will receive all information in their preferred mode of communication.

Issue III Any appropriate placement option recommended by the IEP team must be made available to the student.

It is not unusual for students with visual impairments to be enrolled at neighborhood schools alongside fully sighted classmates and friends. With the provision of appropriate intervention and support services, most students who have low vision or are blind can fully participate in regular education classes and programs. Some students may need special education services at some points during their education.

The IDEA, as reauthorized in 1997, reconfirms that students with disabilities must have access to a full array or continuum of educational placement options. The concept that “one size fits all” does not work when it comes to meeting the needs of students who are blind or have low vision. State Education Agencies and local school districts are required to educate these students in settings that are appropriate to their individual learning needs. These learning needs include

academic needs as well as life skills for severely blind/visually impaired multiple disabled students.

Related services that may be needed by blind or low vision students include, but are not limited to, the following: orientation and mobility (O&M), reader assistance, Braille transcription, audiology, speech and language therapy, occupational and/or physical therapy. Career education and school-to-work transition services should begin as early as possible, and they should be coordinated with agencies responsible for vocational rehabilitation and placement.

The related service of orientation and mobility (O&M) has been specifically addressed in the recent amendments to IDEA. Since the early 1970s, O&M has been a component of curricula offered to students who are blind or visually impaired. In the 1997 reauthorization of the IDEA, the U.S. Congress specifically added Orientation and Mobility to the list of Related Services (Sec. 300.22). Identification of orientation and mobility as a related service under IDEA should prompt special education administrators to assure that this need is being met for their visually impaired students.

Service Delivery Models

For students who are blind or have low vision, education is provided through one of several service-delivery models. The most common models are instruction by an itinerant teacher or by a teacher-consultant through use of a resource room or special school placement. No single model works for all students with visual impairments. While a given model may be entirely appropriate for some students, it may also be inappropriate for others. Some children may need different options at different times throughout their education. All parents should be made aware of all placement options and provided with a copy of the Policy Guidance Document.

Each of the service-delivery models requires the services of teachers and support personnel with professional certification in educating students with visual impairments. With both the itinerant teacher and teacher-consultant models, the student usually attends a local school. The former generally involves direct instruction in the development of disability-specific skills such as Braille, orientation and mobility, efficient use of vision, independent living skills, or training in the use of adapted materials or assistive equipment. This instruction often takes place outside the regular classroom. With the teacher-consultant model, the specialist in visual impairment will interact with the regular education teacher(s) or, in the case of many students with multiple disabilities, with a special classroom teacher. The consultant will support and enable the general educator to effectively teach the student who is blind or who has low vision.

The resource room for students with visual impairments includes only visually impaired students and is generally located in a regular school which may or may not be the student's local school. Visually impaired students who are educated in a resource room participate with their peers in regular education classes and related school activities. As appropriate, they also spend varying portions of the school day with a teacher of visually impaired students to address educational needs specific to visual impairment (e.g., Braille, use of low vision devices).

Special schools, which may include a residential option, are the appropriate environment for visually impaired students who require services not available in local districts. Such placements may be for one or more school years, or for a shorter period if the goal is to strengthen or remediate specific skill areas. Summer programs are often available at specialized schools for this purpose.

The scope of educational services available must address both the unique disability-specific needs and the heterogeneity of this population. Placements may vary in duration according to the student's needs. Combinations of placements are also appropriate for some students. For example, a placement which combines enrollment at a special school with some classes in a local school is also an option to provide a student with the disability specific programs of a special school and the academic environment of a regular school.

Issue IV An expanded core curriculum for students with visual impairments is necessary and should be provided to insure an equal opportunity for learning in general education.

The Individuals with Disabilities Education Act ties the education of children with disabilities more closely to the curricula offered to children in general education classrooms. Special education IEP's must relate to the general academic curriculum, while IEP's must describe program modifications and supports that are required for students with special needs to succeed in the classroom. These requirements apply to visually impaired students who have additional disabilities as well as those for whom vision is the only identified impairment.

The recent IDEA authorization emphasizes access to the general education curriculum, which has too often been denied in the past. This change may be misinterpreted to mean that only the general education curriculum must be made available. It is inappropriate to teach students through the general education curriculum if they need an alternative curriculum. It is also inappropriate to provide students with a simplified general education curriculum rather than an alternative curriculum that emphasizes Braille, low vision training, orientation and mobility, activities of daily living (ADL) skills, vocational skills, and leisure and recreation skills.

The Expanded Core Curriculum

“Core Curriculum” is the term used to identify the basic knowledge and skills that must be acquired by all students before they graduate from high school. Students who are blind or have low vision, need an “expanded core curriculum” in order to be successful adults. It is “expanded” because it encompasses not only the essential elements of the standard academic curriculum, but it also includes instruction that is a direct result of a student’s blindness or low vision. If assessment indicates that a student needs instruction in a skill related to visual impairment, the skill must be included in the goals and objectives of the IEP. The teacher of visually impaired students is responsible for assuring that such goals are addressed, either through direct instruction or by facilitating the efforts of the regular education teacher.

Because blind and visually impaired students do not learn visually in a casual or incidental manner, vital knowledge and information need to be acquired through instruction which is direct, systematic and sequential. Disability-specific components of an expanded core curriculum for visually impaired students include, but may not be limited to, the following:

- Alternate Communication Modes, e.g. Braille, enlarged or enhanced print and/or recorded materials
- Use of Low Vision Devices
- Orientation and Mobility
- Social Interaction Skills
- Independent Living Skills
- Recreation and Leisure Skills
- Career Education and Exploration
- Use of Assistive Technology
- Visual Efficiency Skills

Visually impaired students need two types of educational experiences: (1) the regular education curriculum available to all students, and (2) learning experiences related to blindness or low vision. Both are essential if the student is to be fully prepared for adult life. The additional learning experiences inherent in such an expanded core curriculum are not easy to implement. They require time in a school day which is frequently too short. However, disability-specific skills cannot be neglected because of an emphasis on academic learning.

Creative arts and physical education are as important for children who are blind or who have low vision as is their academic curriculum. These subjects

enhance cognitive, physical, and psychosocial growth. Art, dance, music, drama, creative writing and field trips are all vital and made possible by adapted materials, music Braille and verbal description (often referred to as audio description). Physical education is also vital to the health and well being of blind and low vision children. Many visually impaired children can be accommodated in regular physical education classes with a minimum of modification and expense. When this is not possible, adapted physical education programs must be developed, as required by law. Both types of physical education should be planned with the technical support of a teacher trained in working with blind or low vision students.

Opportunities for instruction in Braille, orientation and mobility, use of optical devices and assistive technology, and other disability-specific skills must be made available to students. No single method has yet been developed which assures complete access to both the academic and the expanded core curricula. Achieving this may take more than the traditional twelve years of public education. Parents and educators will need to consider ways of expanding education beyond established educational time frames. In this regard, many public and private special schools for the blind offer weekend, short-term placement "summer academies" specifically for visually impaired students enrolled in local districts during the regular school year. These alternate programs often focus on disability-specific components of the expanded core curriculum such as independent living skills, career exploration or socialization skills. All too frequently time cannot be made in the normal school week for these competency areas which are so very critical in the growth and development of visually impaired youngsters. LEAs should seek opportunities for an extended school year or summer program for their students who are blind or have low vision.

Issue V Educators must ensure that students receive appropriate opportunities to learn from role models, and mentors who are blind or visually impaired.

One of the most important ways to strengthen the educational potential of a child with a visual impairment is to provide contact with other individuals with visual impairments who have experienced productive school and life experiences and career related activities. Mentors from the community who are blind or visually impaired are invaluable resources to the school and to the student's family.

Young students with visual impairments need practical information about where to obtain job market information and about the use of adaptive/assistive devices in school and in their career. The opportunity for the student and the family to discuss education, career options, and community involvement with concerned mentors can build a foundation for lifelong learning and encourage high expectations for personal growth.

Issue VI Educators must ensure that students receive appropriate opportunities to participate with peers who are blind or visually impaired, as well as with those who are sighted.

A significant visual disability can pose formidable obstacles for some students and far less difficulty for others. Regardless of the student's degree of vision, there is general agreement that blind and visually impaired students must acquire the skills necessary to function in settings in which the majority of people have sufficient vision to enable them to read and write print and to gain information through vision.

Schools must offer opportunities for interaction among classmates. This interaction is necessary to build understanding and awareness of each person. Children who are blind or visually impaired benefit from time to build friendships with other children who are blind/visually impaired as well as with sighted peers who have diverse characteristics. Children do not learn acceptance of others merely by sitting close to them in a classroom. They learn about friendship, acceptance, and responsibility by developing and building friendships with fellow classmates.

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Peer involvement also enhances academic achievement, decreases social isolation and increases social skill achievement. Most deficits in social skills are the result of lack of visual feedback regarding social acceptability of specific behaviors, including nonverbal cues. Children with visual impairments need experiences in the school and community to understand what is expected in social situations. Participating in class and extracurricular activities advances all children's social skills. Educators and parents must provide meaningful activities at school and home to build positive team/friend-building experiences.

Issue VII Educators must ensure appropriate mentoring and professional development opportunities for beginning teachers of students with visual impairments.

Teacher mentor training programs in schools are vital to building a continuum of educational ideals and practices for beginning teachers, including those who are teaching with alternative or emergency certification. Teachers of children with visual impairments who mentor beginning teachers provide an increased understanding of disability-specific educational practice; personal growth as a professional; knowledge of the expanded, disability-specific core curriculum; implementation of activities throughout the student's IEP; and basic issues of teaching children with visual impairments.

Teacher mentors provide the essence of professional development. They encourage, provide new knowledge, listen, and guide in problem solving tech-

niques. The partnership of teacher, parent and student determines the quality of an education more than any other factor. The teacher mentor relationship allows professionals to grow, which ultimately contributes to building a stronger school system.

Issue VIII Educators must encourage extracurricular experiences for students who are blind or visually impaired.

For the child who is blind or who has low vision, there are often unique barriers to learning. The child with normal sight learns new information incidentally and through casual observation. However, children with visual impairments differ widely in their use of observation for learning. Children with visual impairments will encounter incomplete or inaccurate information if learning depends only on observation. Educational principles must focus on an active experiential approach with multisensory learning.

Schools can assist students in learning through participation by encouraging children with visual impairments to be part of school-sponsored co-curricular and extracurricular activities. Broadening experiences, acquiring skills and experiencing success are all part of reaching out to experience new information. Children with visual impairments must be provided with meaningful, hands-on opportunities at school and in the community to build a full understanding of the world around them. Participation in real-life environments ensures that educational objectives are appropriately learned, generalized, and maintained.

Parents can also play an important role in finding and providing opportunities for children to participate in community activities. Contacts with other parents of children with visual impairments, with specialized schools and agencies serving the blind or visually impaired, and with other community organizations can provide information regarding activities that are appropriate for students who are blind or who have low vision.

Issue IX Educators must provide equal access to materials and resources to ensure educational opportunities for students with visual impairment.

Both the Individuals with Disabilities Education Act (IDEA) and the Americans With Disabilities Act (ADA) emphasize that individuals with disabilities are entitled to "Equality of Access" in all aspects of their lives; "...children with disabilities (must) have available to them the variety of educational programs and services available to non-disabled children..." (IDEA, Section 300.305).

Students who are blind or have low vision must be able to interact and compete on an equal level with their sighted peers. Access to instructional materials

in the appropriate medium is critical to educational opportunities. Textbooks, tests, reference materials, classroom handouts, and all other instructional materials used by sighted students must be provided in a medium that students with visual impairments can use along with their peers. Assessment by a specially trained and certified teacher for visually impaired students can identify appropriate learning media for individual students. The list of resources following this section will assist classroom teachers and district staff in locating Braille, large-print and/or audio versions of textbooks, optical devices, and other printed materials commonly used in schools. Important information conveyed by videos and educational software or displayed on bulletin boards can be accompanied by a tape or relayed via a reader assistant.

Creativity and collaboration of teachers are required to provide instructional materials not readily available through existing sources. Braille, large print, recordings, and tactile graphics—including maps, charts, and pictures—must be produced as needed, so that students who are blind or have low vision can access materials simultaneously with sighted students. Specialized equipment such as Braillewriters, cassette recorders, magnifiers, telescopes, and other educational aids and devices must also be available for student use as needed and identified through the IEP process.

Electronic access to information is provided to all school students through learning technologies such as computers, VCRs, and the Internet. This presents major challenges in access for visually impaired students because the information is often visual. Publishers, educators of visually impaired students, and assistive technology experts are working to ensure that accessibility becomes a built-in feature of all educational materials. Until this is fully achieved, creativity and collaboration on the part of the regular and special education staff, and in some cases the visually impaired student, is essential.

Equal access is not limited to the classroom and instructional materials. Information throughout the school culture, including the cafeteria, library, sports facilities, extra-curricular activities, theater productions, etc. must be accessible to students who are blind or who have low vision. Student lunch menus can be transcribed into Braille or large-print. School assemblies and plays can be “audio-described.” The special teacher of visually impaired students will be able to offer suggestions for particular situations, many of which can be easily implemented.

Key Sources for Specialized Materials

Almost every state has a central “clearinghouse” or “materials resource center” which can assist local school districts to locate and obtain instructional materials in accessible media. This unit is often housed with the state department of public

education or at the state school for the blind and can be reached easily via phone or E-mail. Some key national agencies that have an extensive role in providing specialized materials for students who are visually impaired are listed below:

American Printing House for the Blind (APH)
1839 Frankfort Avenue
Louisville, KY 40206
800-223-1839

National Library Service for the Blind and Physically Handicapped
(NLS)
Library of Congress
Washington, D.C. 20542
202-707-5100

Recording for the Blind and Dyslexic (RFB&D)
20 Roszel Road
Princeton, NJ 08540
609-452-0606

Issue X Educators must ensure the availability and use of assistive technology for students who are blind or visually impaired.

Assistive technology, including high and low technology devices, allows students with visual impairment access to the world of information with the same results as their sighted peers. Technology skills provide students with increased control over their school, home, or work environment. Assistive technology can enlarge print, enable computers to “talk,” allow children who are blind to take notes and obtain information through electronic equipment and software that translate print to Braille or speech. Assistive technology also enables children with multiple disabilities to communicate their feelings, desires, and choices. Assistive technology also provides the mechanism for literacy. For students with visual impairments, literacy through technology at school, home, and work means freedom of choice and independence.

Local Education Agencies (LEAs) and specialized schools for the blind must ensure that all students share in access to the “information superhighway” so that computer-based communication promotes equal opportunity in the classroom. The following principles can be applied in expanding access through technology:

- 1) LEAs and schools for the blind must ensure appropriate evaluation of student technology needs by persons knowledgeable about assistive technology and visual impairment.

- 2) LEAs and schools for the blind must ensure that the IEP states the student's need for assistive technology and provides for resources to place the technology at the start of the school year.
- 3) LEAs and schools for the blind must ensure that assistive technology includes both a student's own individual assistive technology needs (e.g. electronic note takers, cassette recorder, talking calculators, Braille writers, communication boards and switches) as well the complete range of assistive technology services and devices used by sighted peers (e.g. multimedia products, Internet, computer networks, laboratory facilities, or World Wide Web).
- 4) LEAs and schools for the blind and visually impaired must invest in training of staff and students on the operation and maintenance of the technology.
- 5) On the basis of need LEAs and schools for the blind must allow students to take home equipment that will enable them to complete schoolwork assignments.

Issue XI A student who is visually impaired and has multiple disabilities is entitled to specialized services provided by professionals prepared in blindness and visual impairment.

One of the largest growing populations is individuals who experience blindness or low vision and who also have other disabilities. At the state and federal level, many of these students are classified by other disabilities and not by their blindness or low vision. This means that in some areas they are not eligible to receive services from teachers of visually impaired students and orientation and mobility professionals. Without services related to visual impairment, these students have more limited opportunities for learning and obtaining an appropriate education. Many of the students who are visually impaired have significant cognitive or other physical disabilities. Their programs and the curricula must be modified to meet their needs and to ensure that their education will provide them with the necessary skills to take their place in society.

Students who are visually impaired and multiply disabled must be assessed by a transdisciplinary team that includes a teacher of the visually impaired. The IEP must include all the necessary and appropriate aspects of specialized training necessary to address their needs as individuals with visual impairment.

A student's completed IEP should reflect an appropriate placement and a usable plan for modifications of programming and access to the general and extended core curriculum. The IEP team is responsible for ensuring that the programming and placement "fit" the unique needs of the student. Therefore, a full array of placement and programming options should be available. Additionally,

educators should ensure that flexibility in programming allows for a combination of placements throughout the student's school career.

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Blindness-related Special Interest Groups Listservs

The following is a list of special interest groups that share information via E-mail which may be helpful in program planning. Descriptions are provided where available. Note: to receive one mail summary a day rather than multiple messages, you will need to specify in your subscription message: set <name digests> (See example at bottom of this page for Information and Technology for the Disabled Journal).

oandm@msu.edu: A list for the discussion of topics related to Orientation and Mobility. To subscribe, send an e-mail message to listserv@msu.edu and include in the body of the message: subscribe oandm <firstname> <lastname>

blindnews@vm1.nodak.edu: a list that deals with issues of people who are visually impaired. To subscribe, send an e-mail message to listserv@vm1.nodak.edu and include in the body of the message: subscribe blindnws <firstname> <lastname>

blind-I@uafsysb.uark.edu: A list that discusses computer use by and for people who are blind. To subscribe, send an e-mail message to listserv@uafsysb.uark.edu and include in the body of the message: subscribe blind-I <firstname> <lastname>

deafblind@ukcc.uky.edu: Dual sensory impairment (deaf-blindness) is the topic of this forum. The mission of DEAFBLND is to share information, inquiries, ideas, and opinions on matters pertaining to dual sensory impairment. to subscribe, send an e-mail message to listserv@ukcc.uky.edu and include in the body of the message: subscribe deafblind <firstname> <lastname>

Lowvis@sjuvn.stjohns.edu: The clinical low vision list. To subscribe, send an e-mail message to listserv@sjuvn.stjohns.edu and include in the body of the message: subscribe lowvis <firstname> <lastname>

listserv@sjuvn.stjohns.edu: Information and Technology for the Disabled Complete Journal. To subscribe, send an e-mail message to listserv@sjuvn.stjohns.edu and include in the body of the message: subscribe itd-jnl <private-name> <last-name> set itd-jnl digests

access@hookup.net: A list dedicated to closed-captioning, audio description, and other Media Access issues. The Media Access list will entertain all manner of discussion related to those topics, including reports of good -and bad - captioning, technology issues, and "nuts-and-bolts" questions. To subscribe, send a message containing the words subscribe access to listmanager@hookup.net

maiser@fs1.sched.pitt.edu: AER listserv has legislative information as well as items of interest to professionals in the blindness field. to subscribe, send the following message to maier@fs1.sched.pitt.edu: subscribe aernet <firstname> <lastname>

Web Site: <<http://www.afb.org>>: This web site describes the activities at the American Foundation for the Blind and identifies present and future critical issues in the blindness field.

5

Personnel

Introduction

This chapter presents the knowledge and skills needed by primary and support personnel who serve students who are blind or visually impaired. The recommendations in this section are based on standards and guidelines of professional organizations, guidelines of selected state departments of education, and the recommendations of consumers and professionals working with individuals who are blind or visually impaired.

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- Issue I** **Professional personnel should have the specialized knowledge, skills, and attributes needed to provide educational and orientation and mobility services to students who are blind and visually impaired.**
- Issue II** **Education personnel should be knowledgeable about establishing parent-professional partnerships.**
- Issue III** **Education personnel should work collaboratively with professionals and other members of the students' community.**
- Issue IV** **Teachers of the visually impaired should be knowledgeable and proficient in literacy and communication modes (including Braille reading and writing and use of optical devices) for students who are blind and visually impaired.**
- Issue V** **Education personnel should be sensitive to the issues surrounding ethnic cultural and linguistic backgrounds of the students they serve.**

- Issue VI** **Qualified education personnel, such as teachers of the vision impaired and Orientation and Mobility Specialists, must be available to provide educational services.**
- Issue VII** **Personnel specializing in orientation and mobility must be available to provide related services to students who are blind and visually impaired, including those with multiple disabilities.**
- Issue VIII** **Professional personnel shall ensure appropriate participation of support personnel such as paraprofessionals, Braille transcribers, and orientation and mobility assistants.**
- Issue IX** **Education personnel shall be knowledgeable about assistive devices and technology including Braille, speech, and low vision technology.**
- Issue X** **Education personnel must be expected to engage in ongoing professional development.**
- Issue XI** **Education personnel who specialize in working with students who are blind and visually impaired are entitled to performance reviews by persons knowledgeable in the education of these students.**

Issue I Professional personnel should have the specialized knowledge, skills, and attributes needed to provide educational and orientation and mobility services to students who are blind and visually impaired.

Students who are blind or visually impaired may receive educational services from two types of specialized professionals:

- 1) Certified teachers of the visually impaired (TVI) who have specialized knowledge and skills in the education of students with visual impairments. They provide instruction to students who are blind or visually impaired in the areas of communication, literacy, daily living, and social emotional skills, academic support, and career education. In addition, they provide skills for students to access the common core or other curriculum provided to all students without visual disabilities.
- 2) Orientation and mobility (O&M) specialists who are university trained and certified in orientation and mobility. They provide instruction in tools and techniques employed by people with visually impaired to orient themselves and move independently in their environment.

Although instructional domains of these two types of professionals may overlap, O&M specialists and teachers of visually impaired students address two distinct bodies of professional knowledge and skills. The same person may provide services in both areas only if that person is trained and certified as both a teacher of visually impaired students and an orientation and mobility specialist.

There is a broad spectrum of knowledge, skills, and attributes needed by teachers and O&M specialists to provide specialized educational services to students who are blind and visually impaired, including those with multiple disabilities. Teachers must be proficient in teaching highly specialized skills such as Braille reading and writing, concept development, and assistive technology. They must also be knowledgeable in general education areas such as academic subjects (social studies and math) and behavior/classroom management strategies. O&M specialists must be proficient in teaching specialized areas such as long cane skills, traffic interpretation, and street crossing skills.

Both types of professionals need to know teaching strategies for children who will learn academics and for those whose education emphasizes a functional curriculum. They must be knowledgeable about child development from infancy and early childhood through adolescence. These professionals must be well informed about other disabling conditions and understand how these disabilities affect visual development and the development of non-visual concepts and skills. They must also be familiar with how a visual impairment affects other disabilities. Skills in collaborating with families, general education staff, and other educational service providers are also vital for teachers of visually impaired students and orientation and mobility specialists.

Teachers of Students Who are Blind and Vision Impaired

A beginning teacher of students who are blind and visually impaired should have the knowledge and skills to teach all children who are visually impaired as well as the knowledge and skills common to all general and special education teachers. The Council of Exceptional Children (CEC) has identified the knowledge and skills for teachers of children who are blind and visually impaired in the *CEC Common Core of Knowledge and Skills for All Beginning Special Education Teachers of Students with Visual Impairments* (See Appendix C). Eight areas are delineated as follows:

- Philosophical, historical, and legal foundations of special education
- Characteristics of learners
- Assessment, diagnosis, and evaluation
- Instructional content and practice

Planning and managing the teaching and learning environment

Managing student behavior and social interaction skills

Communication and collaborative partnerships

Professionalism and ethical practices

The *Expanded Core Curriculum for Students who are Blind and Vision Impaired, including those with Additional Disabilities* (See Appendix G) describes the curriculum that ensures a child who is blind or vision impaired will get an appropriate education. Educators should be prepared in each area of the expanded core curriculum to effectively teach and coordinate the instruction and programs of students. The curriculum includes the following areas:

Compensatory or functional academic skills, including communication modes

Orientation and mobility

Social interaction skills

Independent living skills

Recreation and leisure skills

Career education

Assistive technology

Visual efficiency skills

The *Role and Function of the Teacher of Students with Visual Impairments* (See Appendix F) also describes the teaching activities of a teacher for children who are blind or vision impaired. Six areas are described as follows:

Assessment and evaluation

Educational and instructional strategies: Learning environment

Educational and instructional strategies: Adapting the curriculum

Guidance and counseling

Administration and supervision

School community relations

Orientation and Mobility Specialists

An O&M specialist should have the specialized knowledge and skills in orientation and mobility to teach people who are blind and visually impaired. This includes children and adults of all ages and abilities, including those with additional disabilities. The Association for the Education and Rehabilitation of the Blind and Visually Impaired (AER) has developed standards and competencies for the effective practice of orientation and mobility. The standards and competencies

establish a comprehensive body of knowledge and describe the broad scope of skills included in the profession. A *Professional Standard for the Practice of Orientation and Mobility* lists the following competency areas for O&M specialists:

- Assessment
- Teaching
- Monitoring
- Medical aspects of blindness and visual impairments
- Sensory aspects of blindness and visual impairments
- Psycho-social aspects of blindness and visual impairment
- Human growth and development over the lifespan
- Concept development
- Multiple disabilities
- Systems of O&M
- O&M skills and techniques
- Instructional methods, strategies, and assessment
- Professional information
- History, philosophy, and profession of O&M
- Development, administration, and supervision of O&M programs.

Professional Development

Continuing education is a critical and necessary professional activity for all educational personnel. Because of the range of competencies needed to teach blind and visually impaired children, all skills cannot be acquired in a pre-service college program. Continuing professional development is essential for teachers of the visually impaired and for O&M specialists so that they can develop the advanced knowledge and skills necessary to provide comprehensive services to children who are blind and visually impaired.

The quality of services provided to children in areas such as literacy skills, independence, and socialization often depends on the competencies of the professionals who work with them. Therefore, it is essential that educational administrators are aware of the professional standards, certifications, and endorsements established by professional organizations along with state licensing requirements to ensure that the educational needs of children will be met by qualified and capable professionals. The professional certifications available to teachers of students who are blind and visually impaired and orientation and mobility specialists are:

- *Certified Orientation and Mobility Specialist* from the Association for the Education and Rehabilitation of the Blind and Visually Impaired (AER)
- *Certified Teacher of the Visually Impaired* from the Association for the Education and Rehabilitation of the Blind and Visually Impaired (AER)
- Professionally Recognized Special Educator from the Council for Exceptional Children (CEC)
- Appropriate State Certifications.

In addition, the Personnel Preparation Division 17 and the O&M Division 9 within AER has established program standards for universities with personnel programs in the education of students with visual impairment. They periodically review personnel preparation programs and grant approval to those programs that assure that graduates possess the competencies detailed in the *CEC Common Core Knowledge and Skills Essential for All Beginning Special Education Teachers and CEC Knowledge and Skills for All Beginning Special Education Teachers of Students with Visual Impairments*.

Issue II Education personnel should be knowledgeable about establishing parent-professional partnerships.

The development of parent-professional partnerships is as important to the blind or visually impaired student's success as any other aspect of their educational program. The first element in developing this relationship is an attitude of respect on the part of the professional toward the parents, acknowledging the parents' unique role in the education of their child. This respect is fundamental to a good working relationship and is necessary regardless of such personal characteristics as family income, educational levels, occupation, race, culture, disabilities, or personality characteristics.

Educational personnel can facilitate activities with parents that promote an equal partnership and mutual respect by:

- 1) Sharing information about blindness and visual impairments and providing information about resources inside and outside of the educational system
- 2) Sharing unique parenting skills and other disability-specific skills to enhance a child's educational progress, e.g. learning Braille, unique adaptations for daily living activities, and methods to encourage independence
- 3) Conducting parent-friendly meetings that are free of educational jargon

- 4) Encouraging parents to get involved with other parents of students who are blind or visually impaired, either through informal networking or through formal parent organizations
- 5) Being open to learning about new methods, techniques, and resources from parents
- 6) Accepting the parent's choice regarding their participation with their child's educational program
- 7) Participating in home visits to foster a positive relationship with the family

Issue III Education personnel should work collaboratively with professionals and other members of the students' community.

Educational personnel collaborate with a variety of professionals and other members of the students' communities. As blindness and visual impairments relate to students' medical, educational, psychological and daily living activities, educational personnel will interact with people employed by school systems, medical facilities, and community agencies.

Orientation and mobility specialists are considered "related services" personnel in the Individuals with Disabilities Education Act, 1997, confirming that they provide an essential service for students. The O&M specialist is a key service provider and works collaboratively with all other professionals. Most students with blindness and visual impairments require at least an assessment by a certified orientation and mobility instructor. Without this service, students may be at risk to becoming adults who have neither the knowledge nor the skills to be independent travelers. Students who have multiple disabilities may also require assessment and consideration for service. These students should not be excluded even if they may not have full independent mobility as an educational goal.

General and Special Education Personnel

The teacher of students with visual impairments and the orientation and mobility specialist will establish supportive relationships with other educators regardless of the type of setting or the structure of the professional team. For example, the classroom teacher may tell the TVI (Teacher of Visually Impaired) that the third graders are going to learn to tell time. Prior to the lesson, the TVI will provide the student with an embossed clock or Brailled wrist watch, teach the student how to tactually read the numbers and locate the hands, and work with the general education teacher to apply meaningful teaching strategies during the lesson. A classroom teacher may learn that an orientation and mobility specialist has taught an eighth grade student to use cardinal directions in travel. The teacher

will reinforce the use of directions when the student is locating a room within the building. Collaborative relationships with other education personnel such as counselors, administrators, early intervention specialists, and transition specialists such as work skills teachers are essential for providing effective programs to students.

Related Services Personnel

Approximately 60% of students who are blind or visually impaired have additional disabilities (Sacks & Silberman, 1998). In addition to the services of other special educators, i.e., teachers of students with physical, hearing or other disabilities, a range of related services personnel may be needed to provide an appropriate education. Education personnel will work with physical therapists, occupational therapists, speech and language therapists, and others as needed. Related service personnel will benefit from information provided by the TVI and/or O&M specialist on how blindness and visual impairments may impact student performance and how instructional approaches may be developed or modified. For example, the speech and language therapist of a child who has a visual impairment may need information about whether a student has sufficient vision to benefit from the use of mirrors or cued speech. An occupational therapist may want to know whether specific deficits in a child's use of his hands result from physical difficulties or lack of experience due to blindness. Without consultations, observations, and other interactions between TVIs, O&M specialists and related services personnel, blind and visually impaired students may not fully benefit from the services provided.

Medical Personnel

Ophthalmologists and optometrists who are students' primary eye care specialists will provide medical information to school personnel. The TVI and O&M specialist will use this information, not only to determine the student's eligibility for services, but also to establish the foundation on which functional vision, learning media, and orientation and mobility assessments will be selected and performed. Typically, a student's diagnosis, treatment, optical corrections, and prognosis will be provided along with the student's clinical measures for visual acuity and visual fields. In addition, for many students' information on contrast sensitivity, tolerance for light and glare, and color vision will be included and used for educational decisions such as seating and reading media.

Clinical Low Vision Specialists are either ophthalmologists or optometrists with a specialty in low vision eye care. While primary eye care providers are mainly interested in the health and optical changes in the eye and visual system, the clinical low vision specialist will emphasize the student's functional use of vision. This professional will evaluate whether a student with low vision can ben-

efit from optical devices for such tasks as seeing chalkboards and reading standard print books and materials. Clinical low vision specialists will also evaluate whether students can benefit from light controlling devices or non-optical devices. Clinical low vision specialists may also provide information about how children with multiple disabilities use their vision. They may provide instruction in the use of optical devices and will coordinate with TVIs and O&M specialists about continuing instructional programs in school and home communities. The clinical low vision specialist may also be consulted for children with multiple disabilities who may not benefit from optical devices. These professionals are often able to provide vital information about a child's vision, which will result in better-designed programs for visual efficiency.

State-wide Education Personnel

States have different types of educational personnel that may benefit a local school district or special school. Statewide educational personnel such as instructional materials center personnel, state consultants, outreach service providers, and coordinators may be available to assist local school districts.

Instructional material center personnel typically work at a central location. They are available to provide materials such as Brailled books or specialized tools such as those which are procured through the American Printing House for the Blind.

Some states employ outreach coordinators and teachers through state departments of education, local school districts, or special schools. One individual may be responsible for the coordination of all services to blind and visually impaired students in some states, while other states have no personnel who address education of visually impaired students. In some states specialized schools offer assessment teams, visiting teachers, and expertise; in other states regional education units can provide specialized services to a school district with specific personnel needs. In states where school districts have several sources of knowledge and skills, educational personnel serving this low incidence population appear to be able to provide more comprehensive services.

State and National Organization Personnel

Personnel from state and national organizations and agencies are available to assist with various needs within states. For example, TVI's will be in contact with providers of specialized materials such as Recording for the Blind and Dyslexic, the National Library Service for the Blind and Physically Handicapped of the Library of Congress, and the American Printing House for the Blind.

In many states a variety of personnel from government agencies may be involved in students' programs prior to graduation from high school. For example, rehabilitation counselors from a State Commission for the Blind or Office of Vocational Rehabilitation may participate in a student's transition planning.

Community Agencies Serving the General Population

Community agencies may not know how to include blind and visually impaired students in their programs. Educational personnel may provide vital information to support participation by blind or visually impaired students. Educational personnel contribute to the inclusion of their students in their communities, in such instances as a TVI providing information on where to obtain a Boy Scout manual in Braille and an O&M specialist consulting with a skating instructor on how to include a visually impaired child in an skating activity.

Specialized Agencies Serving Individual with Visual Impairments

In many medium and large cities there are agencies which provide services for children and adults with visual disabilities. Rehabilitation teachers who have specialized preparation with life skills may provide instruction in a child's home in some areas. In other locations the TVI and O&M specialist will provide this instruction. Specialized agencies also have other personnel that may be called upon to augment services available in a school program. For example, these agencies may employ social workers, psychologists, recreation therapists, and others who have combined their disciplines with a special knowledge of blindness and visual impairments.

Consumers

Although not employed by agencies or school districts, members of consumer organizations for people who are blind or visually impaired may make important contributions to the education of students who are blind or visually impaired. Adults who have a variety of occupations and lifestyles are often helpful in sharing knowledge of living with blindness or visual impairment. Some professionals have personal experience with blindness and visual impairments or with another individual characteristic such as a cultural heritage; however, blind and visually impaired adults in the community can provide a unique perspective as mentors or role models.

Issue IV Teachers of the visually impaired should be knowledgeable and proficient in literacy and communication modes (including Braille reading and writing and use of optical devices) for students who are blind and visually impaired.

The specialized knowledge and skills needed by teachers of visually impaired students are described in Issue 1. However, it is important to elaborate on the knowledge and skills for instruction in literacy skills and communication modes, especially Braille reading and writing. Teachers certified in the area of visual impairments must be competent in teaching literacy skills to all students who are blind and visually impaired. Literacy skills for blind and visually impaired students include the following skills and areas:

- Emergent literacy skills
- Braille reading
- Braille writing
- Literary Braille code
- Nemeth Braille code
- Music Braille code
- Computer Braille code
- Foreign language Braille codes
- Unique features of Braille
- Strategies for teaching reading (print and Braille)
- Theoretical models of instruction
- Functional literacy
- Literacy skills in dual media (print and Braille)
- Tactile graphics
- Optical and non-optical low vision reading devices
- Assessment of literacy skills
- Assistive technology to facilitate literacy activities
- Listening, aural reading, and live reader skills
- Other communication skills (ex. spelling, signature writing)

Teaching literacy skills to blind and visually impaired students requires integrating a variety of teaching strategies. These strategies include instructional theory, general reading strategies, implications for low vision reading, unique strategies for teaching Braille reading and writing, and knowledge of special codes such as the literary Braille code. Strategies for teaching literacy skills to students with multiple disabilities are also necessary. Knowledge of object symbols, tactile symbols, picture symbols, augmentative communication, assistive technology, and the communication mode of individual students is critical to teaching literacy skills to students with multiple disabilities.

Assessment of Literacy and Communication Modes

Providing appropriate literacy instruction begins with a comprehensive learning and literacy media assessment. The chapter on Assessment outlines this procedure. However, it is important to note that teachers of students who are blind or visually impaired should be knowledgeable and proficient in assessment practices for literacy and communication modes (including Braille reading and writing and use of optical devices). Ongoing assessment and diagnostic teaching are required to make appropriate decisions in regard to literacy instruction.

Braille Literacy

Literacy for blind and visually impaired students who read and write in Braille is more than just Braille. It also includes a broad variety of skills such as listening, aural reading, assistive technology, study, and organizational skills. Emphasis needs to be placed on Braille reading and writing skills because this area of learning requires instruction from a teacher of visually impaired students.

Fostering emergent Braille literacy skills in preschool blind children requires the teacher to work in partnership with the parents, guardians, primary care providers, and other team members. Supporting and guiding experiential learning activities is essential for future literacy along with concept development and concrete learning activities. The skills listed below are important for the instruction of literacy through Braille.

- Tactile discrimination
- Fine motor skills
- Tactile tracking
- Concept development
- Reading activities with Braille books
- Language activities
- Access to Braille books
- Writing activities in Braille and other tactual expressions

A more formal teaching approach is necessary when a child is ready to acquire academic Braille skills. The student's experiential base needs to be expanded, and enjoyment of reading should be encouraged. General literacy activities need to be developed such as listening skills, fluency, comprehension, phonics, and vocabulary. Literacy skills need to be applied in daily living activities. The unique aspects of Braille literacy that need to be taught include the following:

- Orientation to Braille books
- Mechanics of Braille reading
- Writing with tools such as the Braillewriter and slate and stylus
- Daily application of Braille reading and writing skills in meaningful ways
- Literary Braille code (Grade 1, numbers, composition signs, punctuation, special symbols, formats)
- Nemeth Braille code
- Other specialized codes such as music, computer, and foreign languages
- Reading and interpreting graphic materials such as charts, graphs, tables, and outlines

Assistive technology such as Braille notetakers, refreshable Braille, Braille computers, and scanning

Functional and advanced Braille literacy focuses on the development of Braille reading and writing skills and the use of these skills in school, home, and community environments. In addition to expanding the skills listed above, tasks such as the following are taught:

- Organizing materials
- Ordering materials
- Accessing and using reference materials
- Completing assignments independently
- Reading and engaging in other activities such as card and table games for leisure
- Labeling
- Writing notes and letters
- Signing for one's own legal activities
- Keeping files for addresses and other important information

Print Literacy

Literacy for visually impaired students who read and write in print is more than just general instruction in print reading. It also includes the broad variety of skills mentioned previously for Braille readers such as listening and study skills. Print literacy for low vision readers needs special instruction from a teacher for visually impaired students and includes specialized instruction in the following aspects of reading:

- Use of optical and non-optical low vision reading devices
- Efficient use of visual skills for reading and writing
- Interpretation of pictures and graphics
- Efficient fluency and stamina
- Access and portability of print
- Use of assistive technology
- Use of appropriate print size
- Use of appropriate lighting
- Understanding the role of contrast, glare, and other factors affecting visual efficiency

Braille and Print Literacy

Literacy for some blind and visually impaired students means instruction in dual media (both print and Braille). The information in the previous areas applies to instruction in dual media with extra attention to the following areas:

- Ongoing assessment to assure acquisition of skills in both media
- Motivation
- Meaningful application of reading and writing skills
- Fluency
- Comprehension
- Selecting appropriate learning and literacy media

Teacher Competency to Teach Literacy Skills

Teachers must have the competencies necessary to teach literacy skills to students, including Braille reading and writing. Teacher certification should require appropriate coursework and competencies in Braille and other literacy and communication skills. Professional development opportunities need to be offered routinely in literacy and communication modes (including Braille) for teaching blind and visually impaired students. Professional development opportunities can be developed from a variety of sources such as:

- University courses
- Ongoing inservice and workshops
- Refresher Braille courses
- Braille competency tests

- Self evaluations
- Independent study courses
- Correspondence courses
- Computer-based study tools

Issue V Education personnel should be sensitive to the issues surrounding ethnic cultural and linguistic backgrounds of the students they serve.

Children from every cultural, ethnic, and religious group can be blind or visually impaired. Individual cultural groups may not share in the beliefs and practices of the majority population about blindness and visual impairments. Therefore, educational personnel must be sensitive to cultural responses to disability. Membership in a minority group may also have implications for instructional approaches.

In different cultures, people associate blindness with different meanings. In one culture a blind child may be treated as a younger child than is true to his birth order. In another culture, a blind child may be removed from community participation. Some religious beliefs about blindness may have an impact on a child's education or expectations for independence. Education personnel must work with families to understand how their beliefs coincide with that of the school.

When working with children who have recently moved to the United States, teachers should consider the instructional level which children used in their native countries. Children who are recent immigrants may need intensive services for a period of time. For a student for whom English is a second language, decisions may need to relate to how and when the student is taught English and what materials will be employed.

Accommodations in instruction may need to be made to techniques typically used with children from minority populations. For example, the teacher of visually impaired students may believe that it is appropriate to teach them to make eye contact with others, but the child's family and community may consider it disrespectful for a child to make eye contact with adults. In some cultures, one may need to alter the methods used in sighted guide techniques in order to conform to cultural expectations about how it is appropriate to touch another person.

Understanding the responsibilities of different religious and cultural groups may also be important. When families want their children to participate in religious instruction, they may need information about where to obtain books in an appropriate media and information about how instructors can make accommodations. When families do not expect their blind and visually impaired children to

participate in religious activities as sighted children of the same religion do, professionals may make information available to them about how the child could participate, e.g. by receiving Brailled copies of religious materials.

Issue VI Qualified education personnel, such as teachers of the vision impaired and orientation and mobility specialists, must be available to provide educational services.

The intensity of instruction provided by qualified teachers of children with visual impairments, orientation and mobility specialists, and other personnel must reflect the assessed needs of students. If a first grade student is blind and needs instruction in Braille, the amount of time available to the student from the teacher of the visually impaired must be based on the student's needs, not on the amount of time allocated by the school district or available in the teacher's schedule. For example, if sighted children in third grade receive reading instruction for an hour a day, then the blind child must receive at least that amount of time from a certified teacher of the visually impaired when that child's reading instruction takes place outside of the classroom.

The local education agency is responsible for obtaining appropriate services. At no time should personnel be asked to adopt an Individualized Education Program that bases the number of service hours on administrative allotment rather than child needs. Without this instruction, blind and visually impaired students cannot be expected to compete academically and socially with their sighted peers nor can they be expected to enter the workforce upon leaving school.

Issue VII Personnel specializing in orientation and mobility must be available to provide related services to students who are blind and visually impaired including those with multiple disabilities.

Orientation and mobility (O&M) specialists teach students who are blind or visually impaired how to travel safely and effectively in both indoor and outdoor environments. The constantly changing needs of students and the environments in which they travel determine when and where O&M instruction will begin. Preschool students need to learn about space at home and in preschool. Junior or senior high school students may need to learn how to cross streets safely or how to locate a store in a shopping mall. Being able to move about an environment safely is as important as academic learning and literacy skills throughout the school years. Providing O&M instruction throughout the school years will facilitate easier transitions from grade to grade, school to school, and school to post secondary settings.

Orientation and mobility specialists are trained in a discrete body of knowledge in assessing and teaching independent travel. Students who benefit most

from this service are all those who have a visual disability, including those with low vision. Many low vision students may benefit from the use of optical and non-optical devices designed for use in independent travel. A beginning orientation and mobility specialist has the competence to assess how best to intervene with students with low vision and those who are totally blind. The Association for the Education and Rehabilitation of the Blind and Visually Impaired (AER) has developed standards and competencies for effective practice which all graduates of university approved training programs must meet in order to become a Certified O&M Specialist (COMS). The competency areas are:

- Assessment
- Teaching
- Monitoring
- Medical aspects of blindness and visual impairments
- Sensory aspects of blindness and visual impairments
- Psycho-social aspects of blindness and visual impairment
- Human growth and development over the lifespan
- Concept development
- Multiple disabilities
- Systems of O&M
- O&M skills and techniques
- Instructional methods, strategies, and assessment
- Professional information
- History, philosophy, and profession of O&M
- Development, administration, and supervision of O&M programs

All students who are blind or vision impaired, including those with multiple disabilities, are entitled to an O&M assessment by a certified orientation and mobility specialist. While it is possible that some students may not need ongoing instruction in this area, it is essential that all students with a visual impairment/disability are assessed regularly by the O&M specialist to determine needs. O&M specialists bring an important perspective to the educational planning team for all students (preschool through 21 years of age) with a visual disability. They provide insight into blindness and the need for independence that the unqualified person may not have. They know the prerequisite skills needed by young children for later success in independent travel. They can identify the necessary steps towards independence that an elementary student can take that will support the acquisition of more complex future mobility skills. They also can link

many classroom skills to meaningful learning in functional environments that foster independence.

The Orientation and Mobility Curriculum

The O&M curriculum encompasses many facets of skills and behaviors needed in developing independence. Teaching students to travel safely and effectively in all environments may include the following skill areas:

- Sensory training
- Use of optical and non-optical low vision devices
- Self-protection techniques and sighted guide
- Cane travel and use of adapted mobility devices
- Travel in familiar and unfamiliar environments
- Orientation and navigation skills
- Indoor and outdoor travel
- Residential travel
- Small and large business travel
- Public transportation

Orientation and Mobility Specialist Certification

It is important that O&M personnel have the competencies to provide effective services to students. The Council of Chief State School Officers has established the importance of certification in the *Model Standards for Beginning Teacher Licensing and Development: A Resource for State Dialogue*. It states the following in regard to certification: "Professional certification is based on standards—often more advanced or exacting ones—established by the profession itself, sometimes through a national organization. These standards generally are developed to represent high levels of competence and skill. These standards may require additional education or supervised internship as well as greater knowledge and more skilled performances in specific areas" (Council of Chief State School Officers, p. 5).

Few states offer state department of education certification in O&M. Division 9 (O&M), of the AER has established national professional certification for initial graduates of approved university training programs in O&M, as well as ongoing competencies for continuing education of experienced practitioners. A *Professional Standard for the Practice of Orientation and Mobility* presents the minimum competencies for those persons engaged in professional practice. Further information is available by contacting AER.

Issue VIII Professional personnel shall ensure appropriate participation of support personnel such as paraprofessionals, Braille transcribers, and orientation and mobility assistants.

Support personnel can assist professional staff in providing necessary services to meet the educational needs of children who are blind and vision impaired. Paraprofessionals, Braille transcribers (a.k.a. braillists), and orientation and mobility assistants are the most common support personnel available to educational teams providing services to children who are blind or vision impaired. Support personnel should always be guided by a certified professional.

Paraprofessionals

The role of the paraprofessional is determined through the IEP process and is based on the educational needs of the student. The paraprofessional is not used to supplant the services of a teacher of the visually impaired, but to support instructional activities. The responsibilities of a paraprofessional need to be clearly identified so there is no confusion between the role of the teacher of the visually impaired, the paraprofessional, and the classroom teacher.

The job responsibilities of paraprofessionals can include meeting the physical needs of a child, assisting with preparation of materials, and interacting with the students and his/her peers in educational environments to assist with independence. Most of the activities of the paraprofessional should enhance the independence of the student.

Some of the unique responsibilities of a paraprofessional supporting a student who is blind or vision impaired may include:

- | | |
|----------------------------|---|
| Adapting materials: | Enlarging visual materials
Preparing tactual materials
Tape recording information |
| Access support: | Reading printed information not available in appropriate medium
Narrating video information
Translating print to Braille and Braille to print
Assisting in ordering materials
Keeping an inventory of materials |
| Direct support: | Supervising guided practice and review previous lessons
Assisting with practice of new activities or routines until they are mastered |

Paraprofessionals should be available to meet regularly with the teacher of the visually impaired and other team members to ensure that appropriate services are being delivered. In many situations, the teacher of the visually impaired is responsible for training and supervising the paraprofessional in unique job skills. Appropriate training for the paraprofessional is essential for adequate services to be delivered to the student. Paraprofessional training should include pre-service training, on-the-job training, observation, feedback, on-going consultation, and regular supervision. Frequent observation is necessary by the teacher of the vision impaired to ensure that students are achieving independence and that the paraprofessional is not encouraging dependence or isolating the student from his/her peers.

Braille Transcribers

The role of the braillist is to transcribe educational materials from print to Braille. The braillist can transcribe material such as teacher-produced handouts, tests, supplemental reading materials, lunch menus, blackboard and overhead text materials, school flyers, and newsletters. Students who read and write in Braille should have access to the same print materials as their sighted peers.

Transcribing print material into Braille is a very specialized process and requires the skills of knowledgeable and trained personnel. To ensure material is transcribed according to the standards established by the Braille Authority of North America (BANA), a variety of certifications are available to transcribers through the Library of Congress, National Library Service for the Blind and Physically Handicapped. Certifications are offered in:

- Literary Braille
- Nemeth Braille (mathematics code)
- Music Braille
- Proofreading (both literary and Nemeth)

Educational agencies should encourage and support appropriate certifications for Braille transcribers. Distance education and training materials are offered through the Library of Congress, National Library Service for the Blind and Physically Handicapped. Many states also offer local training. It is also important for Braille transcribers to be supervised by a teacher of the visually impaired and/or other appropriately certified personnel to ensure appropriate materials are provided.

In most cases, a teacher of the visually impaired does not have time to produce all of the Braille required for even one student who reads and writes in Braille. Braille transcription is an essential service for a student who uses Braille.

Orientation and Mobility Assistants

Orientation and mobility assistants (OMAs) are a relatively new group of support personnel who provide O&M services to students. The role of the OMA is to support instruction in O&M except for use of the cane. A standardized curriculum developed by AER outlines the roles and responsibilities of the OMA and the supervising certified orientation and mobility specialist (COMS) in the provision of services to students. OMAs are limited to teaching precane skills to students. These include:

- Sighted guide technique
- Body-image training
- Sensory training
- Sensory-motor development
- Spatial-environmental concepts
- Indoor travel routes

Experienced and certified O&M specialists become trainer-supervisors of OMAs by attending workshops offered through AER. After completing training in the standardized curriculum used to train and supervise OMAs, specialists receive a certificate from AER which allows them to train and supervise OMAs.

The competency based training program for OMAs consists of specified training methods delivered over a required number of training hours, and followed by required practicum experiences. Personnel who complete this training from a COMS receive certification through AER. This process ensures consistent training and adherence to standards.

Issue IX Education personnel shall be knowledgeable about assistive devices and technology including Braille, speech, and low vision technology.

The premise of this issue is that blind and visually impaired children have the same rights to full, equal, and timely access to the educational curriculum as sighted children, including access to computer and Internet instruction and use. Technology access includes the following rights:

- Blind and VI children have a right to have all textbooks, handouts, homework assignments, syllabi, tests, extra-curricular reading materials, reference materials, research materials, maps, graphs, instruction manuals, and other classroom materials in an alternative medium appropriate for their age and skills.

- Blind and VI children have the right to use appropriate devices and equipment that will enable them to independently and efficiently perform the educational tasks required of all students. This includes tasks such as taking notes, writing essays, studying efficiently, writing research papers, completing homework assignments, and taking tests.
- Blind and VI children have the right to use appropriate devices and equipment which will enable them to independently produce their work in regular print for classroom teachers.
- Blind and VI children have the right to participate with classmates in computer or computer related instruction at all levels.
- Blind and VI children are entitled to instruction and on-going support in the use of the appropriate devices and equipment required for the purposes listed above.

Blind and visually impaired students often use these assistive devices:

- Low-vision devices for print users
- Devices for Braille users
- Auditory devices for both large print and Braille users
- Devices used by education personnel to produce Braille, large print, auditory, or tactile materials
- Devices used by students to produce their own work
- Low technology devices
- High technology devices

With regard to the selection, use, instruction, and maintenance of these devices, education personnel should:

- Have sufficient knowledge of the devices and resources for additional information to select and purchase appropriate technology
- Have sufficient knowledge to integrate special technological devices for the blind with existing systems and networks used by persons who are not blind
- Have sufficient knowledge to train and support others in the use of the device. This includes: the student, teachers (including the teacher of the visually impaired, if appropriate), the instructional assistant, parents, and others as appropriate
- Have sufficient knowledge and skills to diagnose problems in order to determine where repairs for the device(s) should be made:

- Have sufficient general computer knowledge and skills to install computer hardware and software, including operating systems hardware
- Have sufficient knowledge of low tech devices or other alternative techniques to use as substitutes when high tech devices fail or need repair.

In order to meet these goals, education personnel should have knowledge of the following high tech and low tech assistive devices or adaptive equipment:

High Tech:

Speech-based screen access technology

Braille embossers

Refreshable Braille

Screen enlargement systems

Braille translation systems

Optical character recognition systems

Electronic note takers for the blind

Systems for producing tactile graphics

Magnification devices, such as the closed circuit television system (CCTV) and bioptic telescopic spectacles

Other assistive devices and technology developed for the use of the blind and visually impaired

Low Tech:

Slate and stylus

Braille writer

Hand-held and stand magnifiers, monoculars, sources of illumination, spectacle mounted high plus lenses and telescopic devices

Tape recorders/players with special speeds and tone index capabilities

Typewriters (manual and electric)

Talking devices: calculators, dictionaries, watches, etc.

Other equipment developed or adapted for the use by blind and visually impaired students

Personnel must also be knowledgeable about devices and equipment available for students who are blind with additional disabilities. For example, a deafblind student may need a device for determining the direction of a sound when traveling independently. A child with limited use of hands may need special buttons

and switches to physically access a computer, which is also equipped with speech access for blind persons.

It is unusual for one person to be knowledgeable about all the devices and areas listed above. Therefore, a team may include persons knowledgeable in different areas. The team may include outside consultants from local and national organizations; e.g. low-vision clinics (local), the International Braille and Technology Center for the Blind in Maryland (international), and the Helen Keller Center for the Deaf-Blind in New York (national).

Issue X Education personnel must be expected to engage in ongoing professional development.

It is important that a portion of an educator's inservice and continuing education relate to general teaching knowledge and skills, such as learning about a new set of graduation requirements. Other inservice and continuing education should be made available for the teacher's development of specific job roles and functions. The teacher and/or the orientation and mobility instructor will need to maintain current knowledge and skills about teaching students who are blind or visually impaired. Supervisors should assist TVIs and O&Ms to create professional development plans with a percentage of their inservice and continuing education time allocated specifically to the field of blindness and visual impairments. Although continuing education may not be required by a teacher's certification within a state or tied to a professional organization's membership, all TVIs and O&Ms should be encouraged and supported in their efforts to expand their knowledge and skills.

School districts may find that locations and "experts" to provide inservice education are scarce, especially if those districts have only a few teachers of students with visual impairments and orientation and mobility specialists. If a district needs to seek resources for professional development outside of the immediate area, personnel may contact a specialized school's outreach program, a specialist at the State Department of Education, a college/university with personnel preparation programs, or professional organizations, such as CEC/DVI and AER. At times several districts may work together to develop inservice programs to meet the needs of TVIs and O&M specialists.

It may not be feasible for a teacher to take a local course because there are fewer than 40 colleges and universities nationwide that offer programs to prepare professionals in visual impairment. Some school districts provide financial support for teachers who will travel to take courses, either during the summer or the school year. Many colleges offer extension or distance education courses, and some have federal funds available for assisting teachers with tuition and/or living

expenses. Professional development plans may involve conferences, special lectures, and other opportunities. Participation in mentor programs such as one for Braille instructors which is sponsored by the American Foundation for the Blind can help teachers maintain specialized skills.

In many situations, teachers and O&M specialists work under the direction of supervisors who have little or no knowledge of blindness and visual impairments. In these situations, it becomes imperative that teachers gain their employers' support for continuing education.

Issue XI Education personnel who specialize in working with students who are blind and visually impaired are entitled to performance reviews by persons knowledgeable in the education of these students.

Teachers and O&M specialists should have the opportunity to grow and change through systematic job performance reviews. Job performance reviews are necessary so that teachers and O&M specialists can set goals for change and growth. Such reviews also assure that professionals have and maintain the appropriate competencies. Personnel who conduct job performance reviews must be knowledgeable about the education of children who are blind and vision impaired. This practice ensures that teachers and O&M specialists are adequately reviewed and evaluated in the specialized knowledge and skills in appropriate areas, such as Braille, assistive technology, O&M techniques, early childhood, and psycho/social issues.

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Job performance reviews should be comprehensive and include all the competencies that are necessary to provide an effective education for all children who are blind or vision impaired. The following documents can be used as resources in a job performance review:

CEC Knowledge and Skills for All Beginning Special Education Teachers of Students with Visual Impairments

A Professional Standard for the Practice of Orientation and Mobility

Expanded Core Curriculum for Students Who Are Blind and Vision Impaired Including Those with Additional Disabilities

1990-1996 Position Papers of the Division on Visual Impairments, Council for Exceptional Children

State and local teacher competencies can also be used with adaptations in the areas unique to teaching children who are blind and visually impaired.

It is ideal for a supervisor with certification in the area of visual impairments and O&M to conduct the evaluation. However, a supervisor with this expertise

is not always available to educational personnel, especially those in rural areas. Personnel from other schools or agencies with appropriate expertise in visual impairments can participate in a job performance review or provide information to the immediate supervisor.

Issue XII Educational administrators need to develop strategies to attract and retain certified personnel who specialize in working with students who are blind and visually impaired.

Although there is a critical shortage of teachers of students with visual impairments and orientation and mobility specialists, it is still possible for a school district to develop a strategy to successfully recruit certified personnel to teach visually impaired students. As soon as a child is identified as having blindness or a visual impairment, the local education agency is responsible for ensuring an appropriate education in the child's least restrictive environment. All students who are blind/visually impaired are entitled to a free and appropriate education, including services from a teacher of students with visual impairments and/or an orientation and mobility specialist.

When a child is suspected of having a visual impairment, an ophthalmologic or optometric evaluation, a functional vision assessment, and a comprehensive educational assessment should be initiated to determine if an impairment exists and to what extent it has an impact on the child's potential to learn. This applies to children who appear to have typical learning abilities as well as those who may have cognitive and other delays due to physical, mental, or sensory disabilities. If consideration of these evaluations at the IEP meeting indicate that the services of a TVI and/or an O&M instructor are needed, the district must secure the appropriate personnel.

Recruitment strategies may include advertising in professional journals, contacting colleges and universities that prepare professionals in visual impairment, contacting the state department of education, communicating with a special school for blind and visually impaired children, and communicating with other professionals about the need. Another effective strategy is contacting the Job Exchange Bank of the Association for Education and Rehabilitation of the Blind and Visually Impaired (AER), an organization of professionals working in the field of blindness and visual impairment, and posting on appropriate professional listserves.

When a school district cannot locate a TVI and an O&M, several options may be considered on a short-term or long-term basis. These options include purchasing the time of professionals employed in another district, contracting with a part time professional, obtaining services from an intermediate unit, joining with

one or more school districts to hire personnel, or obtaining services through a special school's outreach program.

A local education agency may also need to consider "growing their own" personnel. Identifying an interested teacher, college student, or an employee of the school district who plans to remain in the community is the first step. Encouraging and/or supporting this individual in the pursuit of on-campus or extension course work either during the academic year or during summers may be necessary. This individual may become certified and assume a professional role in the instruction of blind and visually impaired students in the school. Some colleges and universities establish collaborative relationships with regions, cities, or other locations where personnel are needed. A listing of colleges that offer personnel preparation programs may also be obtained through AER.

Students with visual impairment require a multiplicity of services from a variety of educational personnel. All individuals, whether teachers, administrators, paraprofessionals, or others, should have the specialized knowledge, skills, and attributes needed to provide the appropriate level of service. When students, families, and service providers collaborate on the provision of educational services, everyone benefits.

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Glossary

The purpose of this section is to provide the reader with a clear definition and description of terms used in the field of education of students who are blind or visually impaired.

*Accommodation.*¹ The adjustment of the eye to focus at different distances, accomplished by changing the shape of the crystalline lens through action of the ciliary muscle.

Americans with Disabilities Act (ADA). Federal disability anti-discrimination legislation passed in 1990.

Aniridia. Undeveloped iris due to lack of pigment, resulting in extreme sensitivity to light.

*APH.*¹ American Printing House for the Blind. Major supplier of educational materials for visually impaired children.

Assessment. The process of determining the presence of a handicapping condition and students' current functioning levels through standardized testing procedures; also see *Diagnosis*.

Assistive devices. See *Assistive technology*.

*Assistive technology.*¹ Any item, piece of equipment, or system that is used to increase, maintain, or improve functional capabilities of individuals with disabilities.

Astigmatism. An eye disorder that produces images on the retina that are not equally in focus.

Ataxia. Movements disrupted by impairments of balance and depth perception.

Atrophy of the optic nerve. Reduced function of the optic nerve.

Blindisms. Inappropriate social behaviors possibly due to understimulation of infants with low vision.

Braille. A system of reading and writing that uses dot codes that are embossed on paper, developed by Louis Braille around 1829.

*Braillewriter.*¹ A machine used to produce embossed Braille symbols.

Career education. A curriculum designed to teach individuals the skills and knowledge necessary in the world of work.

Case manager. See *Service manager*.

Cataract. A cloudy film over the lens of the eye.

Categorical. A system of labeling using specific classifications such as learning disabilities or mental retardation.

Categorical programs. Classes available only to those students identified as having a specific disability, such as learning disabilities, mental retardation, visual impairments, hearing impairments, etc.

Central vision. The ability to see a field of vision greater than 20 degrees.

Closed-circuit television (CCTV). Using a television for transmissions not accessible to the general public; sometimes only one camera and one television monitor are used.

*Cognitive skills.*¹ Intellectual processing abilities.

*Compensatory skills.*¹ Any technique, habit, or activity that must be developed to overcome a severe visual impairment; e.g., daily living skills, social and emotional skills.

Congenital. Present at birth.

Congenital visual impairment. A severe visual impairment present at birth.

Consulting teacher. A specially trained teacher who serves as a resource person to advise and provide instructional support to teachers who have students with disabilities in regular classrooms.

Continuum of services. Full range of educational services arranged in a stairstep fashion, where one level of service leads directly to the next one.

Cornea. The transparent, curved part of the front of the eye.

*Daily living skills.*¹ Skills that enable a visually impaired student to live independently.

Degeneration of the macula. See *Macular degeneration*.

Diabetic retinopathy. Change in the eye's blood vessels, caused by diabetes.

Distance education. The use of telecommunications to deliver live instruction by content experts to remote geographic settings.

Dry eye. A cause of blindness that can be prevented through diet and nutrition.

Due process hearing. A noncourt proceeding before an impartial hearing officer; when the parents and the special services committee cannot reach an agreement on the types of services and the educational program for a student, a third party settles the dispute.

Early childhood programs. Preschool, day care, and early infant school programs that involve students with disabilities and their families, designed to improve the speech, language, social, and cognitive skills of the students attending.

Early intervention programs. See *Early childhood programs*.

Educational placement. The location or type of classroom program (for example, resource room) arranged for a child's education; the setting in which a student receives educational services.

Evaluation. Assessment or judgement of special characteristics such as intelligence, physical abilities, sensory abilities, leaning preferences, and achievement.

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Free appropriate public education (FAPE). A major standard set forth in PL 94-142, now called the Individuals with Disabilities Education Act (IDEA), which states that students with disabilities are entitled to a free appropriate public education which often includes supportive services and highly individualized education programs.

*Functional vision.*¹ The presence of enough usable vision, giving the student the ability to use sight as a primary channel for learning. This term also means the total act of seeing and how the student uses sight to function educationally.

*Functionally blind.*¹ A student whose primary channels for learning is tactual and auditory.

Glaucoma. Fluid in the eye is restricted, causing pressure to build up resulting in damage to the retina. Hardware. Computer equipment.

Hoover cane. Long, white cane used in the mobility and orientation system developed in 1944 by Richard Hoover to help people with visual impairments move independently through the environment.

Hyperopia. Farsightedness, condition that permits visual focus on objects at a distance but not too close.

IDEA. See Individuals with Disabilities Education Act.

Individuals with Disabilities Education Act (IDEA). Formerly referred to as the Education for All Handicapped Children Act (EHA); originally passed as PL 94-142 in 1975, amended in 1986 by PL 99-457 to also provide instruction and service to infants and toddlers, amended and reauthorized again in 1990 under PL 101-476, which strengthened transition programs for adolescents and young adults with handicaps; ensure a free appropriate public education in the least restrictive environment for all children and youth with disabilities.

Individualized Family Service Plan (IFSP). A written plan required by IDEA for children under the age of three who receive special preschool programs; identifies and organizes services and resources to help families reach their goals for their children.

¹Individualized Education Program (IEP). A written plan for a special education student that is developed and implemented in accordance with the IEP team and that is designed to meet the assessed needs of the student.

Individualized instruction. Instruction planned to meet the individual needs of students where they are presented with instructional tasks reflecting their own pace of learning; pinpointing exactly what the student does and does not know and providing instruction based on that information.

¹Individualized Transition Plan (ITP). A term commonly used to refer to transition language in the IEP required by IDEA.

Incidence. The number of new cases that occur within a certain time period.

Instructional goals. A statement about learning that includes a result to be achieved after specific instruction.

Instructional objectives. Statements about learning that relate to an overall goal; includes a description of the student's behavior, the conditions under which the behavior is to occur, and the criteria for acceptable performance.

Integrated classes. Regular education classes where students with special needs learn alongside students without disabilities.

Iris. The colored part of the eye.

Itinerant specialists. Specialists from various disciplines — special education, speech, occupational therapy, physical therapy — who work at different schools across the week, some travel great distances as they go from school to school.

Itinerant teachers. See Itinerant specialists.

Job coach. An individual who works alongside people with disabilities, helping them to learn all parts of the job.

Kurzweil Reader. Equipment designed for people with severe to profound visual impairments that translates print into synthesized speech; the first of these print to voice systems was developed by Kurzweil in 1975.

LEA.¹ Local educational agency. Typically a local school district, but may be a cooperative district or set of districts which are funded as a single unit.

Least restricted environment (LRE). A major principle of IDEA which states that students with handicaps should be integrated and receive their education in the most normal setting.

Legally blind.¹ Central visual activity of 20/200 or less in the better eye after best correction with conventional spectacle lenses; or visual acuity better than 20/200 if there is a field defect in which the widest diameter of the visual field is no greater than 20 degrees. In the United States this definition has been established primarily for economic and legal purposes.

Low-incidence disability. A disability that occurs infrequently; the number of new cases is very low.

Low vision.¹ A student whose vision can be used as a primary channel for learning (sometimes referred to as partial sight or subnormal vision).

Low vision. A mild to moderate visual impairment; visual acuity as measured between 20/70 and 20/200.

Low vision aids.¹ Optical devices of various types useful to persons with visual impairments (magnifiers, monoculars, lenses, hand-held telescope, prism lenses, and so forth).

Low vision assessment.¹ A comprehensive assessment of a visually impaired student's visual impairment and visual potentials and capabilities.

Macular degeneration. Damage to a small area near the center of the retina, which restricts field of central vision resulting in difficulties with reading and writing.

Mainstreaming. Including students with special needs in regular education classrooms for some or all of their school day.

Microcomputer technology. Computer hardware and software used in instruction.

*Mobility.*¹ A term used to denote the ability to navigate from one's present fixed position to one's desired position in another part of the environment. (See also Orientation.)

Multihandicapped. Having more than one handicapping condition; the combination causes severe educational problems.

*Multiply impaired.*¹ Two or more concomitant disabilities that have a direct effect on learning ability.

Myopia. Nearsightedness; inability to focus on objects at a distance.

*Nemeth Code.*¹ A Braille code for mathematics and science.

Noncategorical. An approach to special education that does not classify or differentiate among disabilities or exceptionalities in providing services.

Nystagmus. Rapid, involuntary movements of the eye that interfere with bringing objects into focus.

Occupational therapist (OT). A professional who directs activities designed to improve muscular control as well as develop self-help skills.

*Ophthalmologist.*¹ A doctor of medicine (M.D.) who specializes in diagnosis and treatment of defects and diseases of the eye, performing surgery when necessary or prescribing other types of treatment, including glasses or other optical devices.

Optacon Reader. Provides sensation of printed materials on a person's finger.

Optic nerve. The nerve that sends messages from the eye to the visual center of the brain.

Optic nerve strophy. Reduced function of the optic nerve.

*Optician.*¹ One who grinds lenses, fits them into frames, and dispenses and adjusts glasses or other optical devices in the written prescription of an optometrist or physician.

*Optometrist.*¹ A doctor of optometry (O.D.) who specializes in the examination and treatment of conditions or impairments of the visual system. Optometrists are trained to detect problems with vision, eye diseases, and other abnormalities.

*Orientation.*¹ The process of using the remained senses in establishing one's position and relationship to all other significant objects in the environment. (See also *Mobility*.)

Outreach programs. Specialized programs offered in local communities by residential schools or centralized agencies serving students with special needs.

*Partially sighted.*¹ The visual acuity of a partially sighted person ranges from 20/70 to 20/200 in the better eye, with correction. (See also *Low Vision*.)

Physical therapist (PT). A professional trained to treat physical disabilities through nonmedical means such as exercise, massage, heat, and water.

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Postsecondary education. Education, usually offered by an institution of higher education that comes after high school (e.g., community college, technical vocational school, college, university, continuing education.)

Preschool programs. See *Early intervention*.

Prevalence. The total number of cases at a given time.

*Public Law 94-142.*¹ A federal law that mandates a free appropriate public education for all handicapped children.

Regular class. A typical classroom designed to serve students without disabilities.

Regular Education Initiative (REI). A position held by some special educators that students with disabilities should be served exclusively in regular education classrooms and not be 'pulled out' to attend special classes; an attempt to reform regular and special education so that they are a combined system that maximizes mainstreaming.

Related services. Services that may or may not be part of the classroom curriculum, but support classroom instruction, such as transportation, physical therapy, occupational therapy, and speech and language therapy.

Residual vision. The amount and degree of functional vision that one retains despite a visual handicap.

Resource program. Student attends a regular class for the majority of the day and goes to a special education class several hours per day or for blocks of time each week.

Retina. Inside lining of the eye.

Retinal detachment. Detachment of the retina that interrupts transmission of visual information to the brain.

Retinitis pigmentosa. A genetic eye disease that leads to progressive blindness.

Retinopathy of prematurity (ROP). A severe visual handicap caused by too much oxygen in an incubated infant; formerly referred to as retrolental fibroplasia.

Retrolental fibroplasia. See *Retinopathy of prematurity.*

Rubella. Commonly known as the German measles; a virus that; when contracted by a pregnant woman, has significant and harmful effects on the fetus; when contracted by a young child this virus can lead to death or lifelong disabilities.

School psychologists. Professionals trained to test and evaluate individual children to determine whether they are eligible for special education, and, if so, what special services they require.

Section 504 of the Vocational Rehabilitation Act. A federal law that forbids discrimination in federally funded programs against people with handicaps.

Segregated classes. Classes used exclusively for students with special needs; see also *Self-contained special education classes.*

Self-contained special education classes. Special classes where students attend for most of the school day and are mainstreamed into regular education activities on a part-time basis; special classes that provide intensive, specialized instruction; some of these classes are categorical for students who have the same handicapping condition (e.g., all having hearing impairments), and some cross-categorical where class members have different disabling conditions (e.g., several with mental retardation, several with learning disabilities, etc.)

Service manager. The person who oversees the implementation and evaluation of an Individualized Family Service Plan.

Snellen chart. A chart used to test children's visual acuity, developed by Snellen in 1862.

Social integration. Participation in all facets of society — education, employment, recreation, used with reference to persons with disabilities participating alongside those who are not disabled.

Social interactions. Skills and behaviors occurring between or among people involving social, rather than academic, relationships.

Special education. Individualized education for children with special needs.

Special services committee. A multidisciplinary team, including school administrators, regular and special education teachers, diagnosticians, related service personnel, and the child's parents who follow the process of identification, planning, writing the IEP, and evaluating the child's progress in special education.

Speech/language pathologist (SLP). A professional who works with children with communicative disorders in a variety of roles and settings.

Speech synthesis. Computer-generated speech; a new option with TDD's that allows a printed message to be translated into a voice message through the use of a microcomputer.

Speech synthesizers. Equipment that allows a message entered into a microcomputer to be translated into a voice message.

State education agency (SEA). Typically a state's department of education or division of special education.

Strabismus. Improper alignment of the eyes that results in two images being received by the brain.

Supportive services. Auxiliary services — such as adaptive physical education, speech and language, audiology, physical or occupational therapy — required by many students with handicaps.

Talking books. Audio versions of books.

Technology. Advancement and development of machines and devices that have greatly impacted the habilitation and instruction of individuals with disabilities.

Transitions. A period when a person is making a change; in special education, it refers to the period between one setting to another, such as from preschool to school, from elementary to middle school, and from school to work; the process of moving from adolescence to adulthood, within the context of social, cultural, economic, and legal considerations.

Traumatic brain injury. A category of disability included in IDEA in 1990; and injury to the brain that impairs learning, behavior or motor functioning.

Tunnel vision. Severe limitation in peripheral vision.

*Visual acuity.*¹ The measurement of the sharpness of vision in respect to the ability to discriminate detail. A visual acuity measurement is not useful for determining a career choice, classroom situation, or training program. Visual acuity should not be used to predict one's visual function or educational performance.

Visual efficiency. How well a person can use sight.

Visual impairments. An overall term that includes all levels of vision loss.

Visual perception. Ability to decode visual stimuli.

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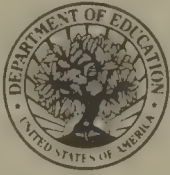
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APPENDIX

A

OSEP Policy Guidance on Educating Blind and Visually Impaired Students



UNITED STATES DEPARTMENT OF EDUCATION
OFFICE OF SPECIAL EDUCATION AND REHABILITATIVE SERVICES

November 3, 1995

Contact Person
Name : Rhonda Weiss
Telephone : (202) 205-9053

OSEP - 96-4

To: Chief State School Officers

From: Judith E. Heumann *J. Heumann*
Assistant Secretary
Office of Special Education and
Rehabilitative Services

Thomas Hehir *TH*
Director
Office of Special Education Programs

Subject: Policy Guidance on Educating Blind and Visually
Impaired Students

Introduction

One of our highest priorities at the Office of Special Education and Rehabilitative Services (OSERS) is improving services for students with low incidence disabilities, particularly those with sensory deficits. On October 30, 1992, the Department published a Notice of Policy Guidance on Deaf Students Education Services¹ (Notice) to provide additional guidance to educators on the free appropriate public education (FAPE) requirements of Part B of the Individuals with Disabilities Education Act (Part B) and Section 504 of the Rehabilitation Act of 1973² as they relate to

¹See 57 Fed. Reg. 49274 (Oct. 30, 1992).

²Section 504 of the Rehabilitation Act of 1973 (Section 504) prohibits discrimination on the basis of disability by recipients of Federal financial assistance. The Department's regulations implementing Section 504, at 34 CFR Part 104, require recipients that operate public elementary and secondary education programs to provide appropriate educational services to disabled students. See 34 CFR §§104.33-104.36. Section 504 is enforced by the

students who are deaf. In OSEP Memorandum 94-15, dated February 4, 1994, we clarified that the policy guidance in this Notice is equally applicable to all students with disabilities.

Nevertheless, it has come to our attention that services for some blind and visually impaired students are not appropriately addressing their unique educational and learning needs, particularly their needs for instruction in literacy, self-help skills, and orientation and mobility. We at OSERS are strongly committed to ensuring that our educational system takes the steps that are necessary to enable students who are blind or visually impaired to become productive and contributing citizens. Therefore, OSERS has determined that there is a need for additional guidance on the FAPE requirements of Part B as they relate to blind and visually impaired students. This guidance will provide some background information on blind and visually impaired students and discussion of their unique needs, and will identify the steps that educators can take in meeting their responsibilities under Part B to blind and visually impaired students.

We hope that the attached guidance is helpful to you and educators in your State as you implement educational programs for blind and visually impaired students. If there are any questions, or if further information is needed, please contact the contact person listed above or Dr. JoLeta Reynolds in the Office of Special Education Programs at (202) 205-5507.

Attachment

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cc: State Directors of Special Education
RSA Regional Commissioners
Regional Resource Centers
Federal Resource Center
Special Interest Groups
Parent Training Centers
Independent Living Centers
Protection and Advocacy Agencies

Department's Office for Civil Rights (OCR). The Americans with Disabilities Act of 1990 (ADA), Title II, prohibits discrimination on the basis of disability by State and local governments, whether or not they receive Federal funds; OCR enforces Title II of the ADA as it relates to public elementary and secondary educational institutions and public libraries, and interprets the requirements of Title II of the ADA as consistent with those of Section 504. OCR officials have reviewed this guidance and find it to be consistent with recipients' obligations to provide FAPE to blind and visually impaired students under Section 504 and Title II of the ADA.

Background

The population of students who receive services under Part B because of blindness or visual impairment is extremely diverse. These students display both a wide range of vision difficulties and adaptations to vision loss. The diversity that characterizes the student population is true of the population of blind and visually impaired persons in general. So far as degree of vision loss is concerned, the student population includes persons who are totally blind or persons with minimal light perception, as well as persons with high levels of functional vision, though less than the norm. For some students, visual impairment is their only disability; while others have one or more additional disabilities that will affect, to varying degrees, their learning and growth.

Identifying other characteristics of this diverse population is far more complex. This is because adaptations to vision loss vary greatly and are shaped by individual differences in areas such as intellectual abilities and family supports. Degree of vision loss, therefore, does not give a full understanding of how that loss affects learning. Students with similar degrees of vision loss may function very differently. A significant visual deficit can pose formidable obstacles for some students and far less formidable obstacles for others. However, regardless of the degree of the student's vision loss or the student's ability to adapt to that loss, there is general agreement that blind and visually impaired students must acquire the skills necessary to function in settings in which the majority of people have vision sufficient to enable them to read and write by using regular print as well as to move about in their environment with ease.

To state the obvious, children begin at a very young age to imitate the actions of others, particularly by imitating what they see others doing. Typically, learning is based on this principle. The challenge for educators of blind and visually impaired students in schools is how to teach their students to learn skills that sighted students typically acquire through vision, including how to read, write, compose, and obtain access to information contained in printed materials. We recognize that blind and visually impaired students have used a variety of methods to learn to read and write. For example, for reading purposes, some students use braille exclusively; others use large print or regular print with or without low vision aids. Still others use a combination of methods, including braille, large print, and low vision aids while others have sufficient functional vision to use regular print, although with considerable difficulty. In order to receive an appropriate education under Part B, unless a student who is blind or visually impaired has other disabilities that would inhibit his or her ability to learn to read, we believe that instruction in reading must be provided for blind and visually impaired students in the

medium that is appropriate for their individual abilities and needs to enable them to learn to read effectively.

One of the most serious concerns voiced by parents of blind children and their advocates, and by adults who are blind or visually impaired as well, is that the number of students receiving instruction in braille has decreased significantly over the past several decades. As a result, these individuals believe that braille instruction is not being provided to some students for whom it may be appropriate. Braille has been a very effective reading and writing medium for many blind and visually impaired persons. In fact, data from a recent study demonstrate that blind and visually impaired adults who know braille are more likely to be employed than those who do not, suggesting a strong correlation between knowledge of braille and a person's ability to obtain future employment. The American Foundation for the Blind's Careers and Technology Information Bank, which lists 1,000 different jobs held by blind and visually impaired people, indicates that 85 percent of those who use braille as their primary method of reading are employed.³ Undoubtedly, there are numerous other benefits that individuals for whom braille instruction is appropriate would derive from knowledge of braille, particularly a heightened sense of self-esteem and self-worth that a student gains from the ability to read effectively.

Another significant concern voiced by parents of blind and visually impaired students and their advocates, as well as by many blind and visually impaired adults, is that these students are not receiving adequate instruction in orientation and mobility to address their individual needs. In some instances, it has been reported that these students do not even receive adequate evaluations of their needs for such instruction. The intent of Part B cannot be achieved fully if a blind or visually impaired student who needs instruction in orientation and mobility does not receive that instruction before completing his or her education.

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I. Application of the Free Appropriate Public Education Requirements of Part B to Blind and Visually Impaired Students

Under Part B, each State and its public agencies must ensure that all children with specified disabilities have available to them a free appropriate public education (FAPE), and that the rights and protections of Part B are afforded to those students and their parents. FAPE includes, among other elements, special education

³ Study of Issues and Strategies toward Improving Employment of Blind and Visually Impaired Persons in Illinois, American Foundation for the Blind, (March 1991).

and related services that are provided at no cost to parents under public supervision and direction, that meet State education standards and Part B requirements, that include preschool, elementary, or secondary school education in the State involved, and that are provided in conformity with an individualized education program (IEP).⁴

Before a student with a disability can receive special education and related services, a full and individual evaluation of the student's educational needs must be conducted in accordance with the requirements of 34 CFR §300.532.⁵ Section 300.532 requires, among other factors, that the child be evaluated by a multidisciplinary team or group of persons, including at least one teacher or other specialist with knowledge in the area of suspected disability.⁶ Thus, for blind or visually impaired students, an individual with knowledge of blindness and visual impairment would be an essential participant on this multidisciplinary team.

An assessment that meets the requirements of Part B must assess the child in all areas related to the suspected disability, including, if appropriate, "health, vision, hearing, social and emotional status, general intelligence, academic performance, communicative status, and motor abilities."⁷ Assessments for blind and visually impaired students must evaluate the student in the areas listed above, as determined appropriate by the multidisciplinary team.

For example, an assessment of academic performance would include an assessment of the student's ability to master the skills necessary for literacy, including reading, reading comprehension, composition, and computing. If appropriate, an assessment of vision would include the nature and extent of the student's visual impairment and its effect on the student's ability to learn to read, write, and the instructional method or methods that would be appropriate to enable the student to learn the above skills. For the teaching of reading and composition, these methods could include braille, large print or regular print with or without low vision optical devices, or a combination of braille and print. A range of devices that utilize computer-generated speech could be helpful tools in the instruction of children who are blind or visually impaired. Because of the

⁴20 U.S.C. §1412(2); 34 CFR §300.121; 20 U.S.C. §1401(a)(18) and 34 CFR §300.8.

⁵34 CFR §300.531.

⁶ See 34 CFR §300.532(e)

⁷See 34 CFR §300.532(f).

importance for some blind and visually impaired students of mastering the skills necessary to acquire information, additional assessments may be necessary to determine whether the student should receive specific instruction in listening skills. Possible assessments that could be considered for this purpose could include assessments of hearing, general intelligence, or communicative status. The student's need for instruction in orientation and mobility and the appropriate method or methods for acquiring this skill could also be assessed. As with other educational decisions, the results of the student's assessments must be considered as the student's IEP⁸ is developed, and the participants on the student's IEP team determine the specially designed instruction and related services to be provided to the student.

Under Part B, the public agency responsible for the student's education must initiate and conduct meetings to develop or review each student's IEP periodically, and if appropriate, revise its provisions. A meeting must be held for this purpose at least once a year.⁹ Required participants at all IEP meetings include the child's teacher; an agency representative, who is qualified to provide or supervise the provision of special education; the parents, subject to certain limited exceptions; the child, if determined appropriate; and other individuals at the parent's or agency's discretion. If the IEP meeting occurs in connection with the child's initial placement in special education, the school district must ensure the participation of evaluation personnel, unless the child's teacher or public agency representative or some other person at the meeting is knowledgeable about the evaluation procedures used with the child and the results of those procedures.¹⁰

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Each student's IEP must contain, among other components, a statement of annual goals including short-term objectives, the specific special education and related services to be provided to the student and the extent that the student will be able to participate in regular educational programs, and a statement of needed transition services under certain circumstances.¹¹ To ensure that blind and visually impaired students receive adequate instruction in the skills necessary to become literate, IEP teams

⁸The IEP is the written document that contains the statement for a disabled student of the program of specialized instruction and related services to be provided to a student. 34 CFR §§300.340-300.350.

⁹20 U.S.C. §1414(a)(5) and 34 CFR §300.343(d).

¹⁰34 CFR §300.344.

¹¹34 CFR §300.346.

must ensure that the instructional time that is allocated is appropriate for the required instruction or service.¹² For a student to become literate in braille, systematic and regular instruction from knowledgeable and trained personnel is essential. Likewise, for students with low vision, instruction in the utilization of remaining vision and in the effective use of low vision aids requires regular and intensive intervention from appropriately-trained personnel.

In all instances, IEP teams must consider how to address the needs of blind and visually impaired students for the skills necessary to achieve literacy. For students who are blind or for students with a minimal amount of residual vision, it is probable that braille will be the primary instructional method for teaching the student to learn to read. Therefore, for blind students and for students with a minimal amount of residual vision, braille should be considered as the primary reading method, unless the student has a disability in addition to blindness that would make it difficult for the student to use his or her hands or would otherwise adversely affect the student's ability to learn to read. In developing IEPs for other students with low vision, IEP teams should not assume that instruction in braille would not be appropriate merely because the student has some useful vision. While IEP teams are not required to consider the need for braille instruction for every student with a visual impairment who is eligible for services under Part B, IEP teams may not fail to consider braille instruction for students for whom it may be appropriate. This consideration must occur despite factors such as shortages or unavailability of trained personnel to provide braille instruction, the ability of audiotapes and computers to provide blind and visually impaired persons with ready access to printed textbooks and materials, or the amount of time needed to provide a student with sufficient and regular instruction to attain proficiency in braille.

IEP teams also must select the method or methods for teaching blind and visually impaired students how to write and compose. Students whose appropriate reading medium is braille may benefit from using braille for these purposes. Alternatively, in addition to braille, they may benefit from using a personal computer with speech output for composition. Therefore, IEP teams must make individual determinations about the needs of blind and visually impaired students for instruction in writing and composition, and must include effective methods for teaching writing and composition in the IEPs of those students for whom instruction in this area is determined to be appropriate.

¹²Appendix C to 34 CFR Part 300 (question 51).

In addition to mastering the skills taught to all students, blind and visually impaired students must receive instruction in the skills necessary to acquire information, particularly because braille or large print documents frequently cannot be made accessible to them in a timely manner. The skills that could be taught to accomplish this include recordings that utilize compressed speech, personal computers with speech output, and optical scanners with speech output. As determined appropriate, use of these devices and methods would be considered on an individual basis. In appropriate situations, one or more of these devices could be used to supplement braille instruction for students for whom braille is the primary reading medium, or to supplement print or large print for students using print as their primary reading medium. In rare instances, methods for acquiring information could be used in place of braille or print for students who, by reason of other disabilities, cannot be taught to read.

To ensure that IEPs for blind and visually impaired students address their specific needs effectively, the following unique needs should be considered as IEPs for these students are developed:

- . Skills necessary to attain literacy in reading and writing, including appropriate instructional methods;
- . Skills for acquiring information, including appropriate use of technological devices and services;
- . Orientation and Mobility Instruction;
- . Social Interaction Skills;
- . Transition Services Needs;
- . Recreation and;
- . Career Education.

This list is not intended to be exhaustive. Participants on IEP teams could determine that it would be appropriate to consider an individual student's need for other skills, in addition to the skills listed above. Therefore, in making decisions about the educational programs for blind and visually impaired students, IEP teams must consider the full range of skills necessary to enable these students to learn effectively.

II. Least Restrictive Environment and Placement Requirements

Part B requires States to have procedures for assuring that, to the maximum extent appropriate, students with disabilities are educated with students who are not disabled, and that special classes, separate schooling, or other removal of students with disabilities from the regular educational environment occurs only when the nature or severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.¹³ This requirement is known as the least restrictive environment (LRE) requirement.

Recognizing that the regular classroom may not be the LRE placement for every disabled student, the Part B regulations require public agencies to make available a continuum of alternative placements, or a range of placement options, to meet the needs of students with disabilities for special education and related services. The options on this continuum, which include regular classes, special classes, separate schools, and instruction in hospitals and institutions, must be made available to the extent necessary to implement the IEP of each disabled student.¹⁴

Part B requires that each child's placement must be based on his or her IEP.¹⁵ Thus, it is the special education and related services set out in each student's IEP that constitute the basis for the placement decision. That is why placement determinations cannot be made before a student's IEP is developed. Rather, it is the special education and related services set out in the student's IEP that must constitute the basis for the placement decision. After the IEP of a blind or visually impaired student is developed, the placement determination must be made consistent with the special education and related services reflected in the student's IEP. In addition, the potential harmful effect of the placement on the visually impaired student or the quality of services he or she needs must be considered in determining the

¹³20 U.S.C. §1412(5)(B); 34 CFR §300.550(b).

¹⁴See 34 CFR §§300.551 and 300.552(b).

¹⁵See 34 CFR §300.552(a)(2). That regulation requires that each child's placement is determined at least annually, is based on his or her IEP, and is in the school or facility as close as possible to the child's home. 34 CFR §300.552(a)(1)-(3). Further, unless a disabled student's IEP requires another arrangement, the student must be educated in the school or facility that he or she would attend if not disabled. 34 CFR §300.552(c).

LRE.¹⁶ The overriding rule in placement is that each student's placement must be determined on an individual basis.¹⁷ As in other situations, placements of blind and visually impaired students may not be based solely on factors such as category of disability, severity of disability, configuration of delivery system, availability of educational or related services, availability of space, or administrative convenience.

In addition to the Part B requirements applicable to placement in the LRE, Part B requires that each student's placement decision be made by a "group of persons, including persons knowledgeable about the child, the meaning of evaluation data, and placement options."¹⁸ While Part B does not explicitly require the participation of the child's parent on this placement team, many States include parents in the group of persons that makes placement decisions. It also is important to emphasize that parents of blind and visually impaired students, through their participation on the student's IEP team, can play a critical role in ensuring that the student's unique needs are appropriately addressed. Public agencies and parent information centers should take steps to ensure that parents are fully informed about the instructional media that are available to address the unique needs arising from the student's visual impairment.

In implementing Part B's LRE requirements, in some instances, placement decisions are inappropriately made before IEPs that address a child's unique needs are developed. Determinations of appropriate special education and related services for blind and visually impaired students must be made through the IEP process, and must examine the development of skills necessary to address the effects of blindness or low vision on the student's ability to learn and to access the curriculum. Since Part B requires that each child's placement be based on his or her IEP, making placement decisions before a student's IEP is developed is a practice that violates Part B and could result in the denial of FAPE in the LRE.

Still in other instances, some students have been inappropriately placed in the regular classroom although it has been determined that their IEPs cannot be appropriately implemented in the regular classroom even with the necessary supplementary aids and supports. In these situations, the nature of the student's disability and individual needs could make it appropriate for the student to be placed in a setting outside of the regular educational environment in order to ensure that the student's IEP

¹⁶34 CFR §300.552(d).

¹⁷34 CFR §300.552 and Note 1.

¹⁸34 CFR §300.533(a)(3).

is satisfactorily implemented. By contrast, there are other instances where some blind and visually impaired students have been inappropriately placed in settings other than the regular educational environment, even though their IEPs could have been implemented satisfactorily in the regular classroom with the provision of supplementary aids and services. As is true for all educational decisions under Part B, the above concerns about the misapplication of the LRE requirements underscore the importance of making individual placement determinations based on each student's unique abilities and needs.

In making placement determinations, it is essential that placement teams consider the full range of placement options for blind and visually impaired students. The following are some examples of placement options that could be considered:

- Placement in a regular classroom with needed support services provided in that classroom by an itinerant teacher or by a special teacher assigned to that school;
- Placement in the regular classroom with services outside the classroom by an itinerant teacher or by a special teacher assigned to that school;
- Placement in a self-contained classroom in a regular school;
- Placement in a special school with residential option.

III. Procedural Safeguards

Part B also requires that public agencies afford parents a range of procedural safeguards. These include giving parents written notice a reasonable time before a public agency proposes to initiate, or change, the identification, evaluation, educational placement of the child, or the provision of a free appropriate public education to the child. This notice to parents must include a description of the action proposed, or refused, by the agency, an explanation of why the agency proposes, or refuses, to take the action, and a description of any options the agency considered and the reasons why those options were rejected.¹⁹ The requirement to provide a description of any option considered includes a description of the types of placements that were actually considered, e.g., regular class placement with needed support services, regular classroom with pull-out services; and the reasons why these placement options were rejected. Providing this kind of information to parents will enable them to play a

¹⁹See 34 CFR §300.504(a) and 300.505(a)(2)-(4).

more knowledgeable and informed role in the education of their children. Part B affords parents and public educational agencies the right to initiate an impartial due process hearing on any matter regarding the identification, evaluation, or educational placement of the child, or the provision of a free appropriate public education to the child.²⁰

Disagreements between parents and public agencies over issues such as the extent that braille instruction should be included in a student's IEP and the educational setting in which the child's IEP should be implemented are examples of some of the matters that can be the subject of a Part B due process hearing. Since many States procedures call for mediation before resorting to formal due process procedures, issues that can be the subject of a Part B due process hearing also can be addressed through mediation if the State has such a process, or through other alternative dispute resolution mechanisms. We strongly encourage alternative dispute resolution without a need to resort to due process and informing parents about such procedures. Public agencies also need to inform parents of blind and visually impaired students of their right to initiate a Part B due process hearing when agreement cannot be reached on important educational decisions.

²⁰See 20 U.S.C. §1415(b)(1)(E) and 34 CFR §300.506(a).

APPENDIX

B

Limitations on Exclusive Copyright for Literary Works in Specialized Format for the Blind and Disabled

Public Law 104-197
104th Congress, H.R. 3754
September 16, 1996

An Act

Making appropriations for the Legislative Branch for the fiscal year ending September 30, 1997, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,...

TITLE III - GENERAL PROVISIONS

SEC. 316. Limitation on Exclusive Copyrights for Literary Works in Specialized Format for the Blind and Disabled-

(a) IN GENERAL-Chapter 1 of title 17, United States Code, is amended by adding after section 120 the following new section:

'SEC 121. Limitations on exclusive rights: reproduction for blind or other people with disabilities

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'(a) Notwithstanding the provisions of sections 106 and 710, it is not an infringement of copyright for an authorized entity to reproduce or to distribute copies or phonorecords of a previously published, nondramatic literary work if such copies or phonorecords are reproduced or distributed in specialized formats exclusively for use by blind or other persons with disabilities.

'(b) (1) Copies or phonorecords to which this section applies shall-

'(A) not be reproduced or distributed in a format other than a specialized format exclusively for use by blind or other persons with disabilities;

'(B) bear a notice that any further reproduction or distribution in a format other than a specialized format is an infringement; and

'(C) include a copyright notice identifying the copyright owner and the date of the original publication.

'(2) The provisions of this subsection shall not apply to standardized, secure, or norm-referenced tests and related testing materials, or to

computer programs, except the portions thereof that are in conventional human language (including descriptions of pictorial works) and displayed to users in the ordinary course of using the computer programs.

‘(c) For purposes of this section, the term-

‘(1) ‘authorized entity’ means a nonprofit organization or a governmental agency that has a primary mission to provide specialized services relating to training, education, or adaptive reading or information access needs of blind or other persons with disabilities;

‘(2) ‘blind or other persons with disabilities’ means individuals who are eligible or who may qualify in accordance with the Act entitled “An Act to provide books for the adult blind”, approved March 3, 1931 (2 U.S.C. 135a; 46 Stat. 1487) to receive books and other publications produced in specialized formats; and

‘(3) ‘specialized formats’ means braille, audio, or digital text which is exclusively for use by blind or other persons with disabilities.

(b) TECHNICAL AND CONFORMING AMENDMENT—The table of sections for chapter 1 of title 17, United States Code, is amended by adding after the item relating to section 120 the following:

‘121. Limitations on exclusive rights: reproduction for blind or other people with disabilities.’

APPENDIX

C

The Council for Exceptional Children (CEC) Common Core of Knowledge and Skills Essential for All Beginning Special Education Teachers

CEC Common Core of Knowledge and Skills Essential for All Beginning Special Education Teachers

Preamble

The standards of the profession of special education are a formally codified set of beliefs. These belief statements represent the special educator's principles of appropriate ethical behavior and are based on several assumptions.

One assumption is that special education has within its heritage the perspectives of advocacy for persons with disabilities and of embracing individual differences. These differences include the traditional consideration of the nature and effect of exceptionalities. As the community of exceptional children, youth, and adults has become increasingly diverse, these perspectives have been broadened to include other characteristics that significantly influence their quality of life. To maintain their ability to successfully function as advocates for their multicultural clients, special educators must broaden their perspectives to ensure vigilant attention to the issues of diversity. Current demographic trends clearly indicate that:

- The numbers of children and youth from culturally and linguistically diverse backgrounds served in public schools are growing rapidly.
- Cultural and linguistic diversity is expected to continue as well as to increase.
- The number of professionals who are culturally and linguistically diverse entering the special education profession has been declining even as the numbers of students who are culturally and linguistically diverse are rising.

Given the pervasive nature of diversity, professional standards are needed that guide professional practice in ways that are relevant to the multicultural populations served in special education. Specifically, these standards reflect the premise that, to design effective interventions, special educators must understand the characteristics of their learners, including factors such as culture, language, gender, religion, and sexuality. This premise has been addressed in two ways.

First, most statements are inclusive in nature; that is, they identify knowledge and skills essential to effectively serve *all* exceptional learners, including those from culturally and linguistically diverse backgrounds. Second, selected items address the most critical aspects of diversity and are infused throughout the model.

Another assumption is that the sustained involvement of families and the larger community is fundamental to delivering high-quality educational services to individuals with exceptional learning needs. The knowledge and skills contained in this document should be interpreted broadly to include learners of all ages, beginning with infants and preschoolers and extending to young adults who are exiting the school program. Similarly, the term *families* should be interpreted broadly to include, as appropriate to given situations, biological mothers and fathers, adoptive parents, legal guardians, foster parents or primary caregivers, siblings, and extended family members. Finally, while not specifically stated, it is assumed that special educators may provide learning opportunities in a variety of learning environments, including the home, preschool, school, and community settings, as well as in both specialized and integrated environments.

This document focuses on the unique set of knowledge and skills needed to practice in special education, not on specific areas of exceptionality or age groupings, general educational methods, or subject matter content. Special educators who practice in a specific area (or areas) of exceptionality or age grouping must possess the exceptionality-specific knowledge and skills adopted by CEC *in addition to* the Common Core. Also, it is assumed that a special educator who is required to teach specific subjects or content areas (such as science, social studies, foreign languages, vocational education) has additional preparation, practicum experiences, and expertise in those areas.

An additional assumption is that this Common Core of Knowledge and Skills will change over time. As with the adoption of the CEC Code of Ethics, time should be provided for

continuing examination, debate, and further articulation of the knowledge and skills for entry-level special educators.

A final assumption of this Common Core of Knowledge and Skills is that the professional conduct of entry-level special educators is governed foremost by the CEC Code of Ethics. Special education professionals

- Are committed to developing the highest educational and quality of life potential of exceptional individuals.
- Promote and maintain a high level of competence and integrity in practicing their profession.
- Engage in professional activities that benefit exceptional individuals, their families, other colleagues, students or research subjects.
- Exercise objective professional judgment in the practice of their profession.
- Strive to advance their knowledge and

skills regarding the education of exceptional individuals.

- Work within the standards and policies of their profession.
- Seek to uphold and improve, where necessary, the laws, regulations, and policies governing the delivery of special education and related services and the practice of their profession.
- Do not condone or participate in unethical or illegal acts, nor violate professional standards adopted by the Delegate Assembly of CEC.

It was through significant professional and personal commitment that the members of CEC crafted this product. In the process we learned not only about knowledge and skills but also about each other and developed a deep mutual respect. May those who use this Common Core of Knowledge and Skills experience that same mutual respect from all who serve children and their families.

KNOWLEDGE AND SKILLS STATEMENTS

CC: Common Core
1. Philosophical, Historical, and Legal Foundations of Special Education

Knowledge:

- K1 Models, theories, and philosophies that provide the basis for special education practice.
- K2 Variations in beliefs, traditions, and values across cultures within society and the effect of the relationship among child, family, and schooling.
- K3 Issues in definition and identification procedures for individuals with exceptional learning needs including individuals from culturally and/or linguistically diverse backgrounds.
- K4 Assurances and due process rights related to assessment, eligibility, and placement.
- K5 Rights and responsibilities of parents, students, teachers and other professionals, and schools as they relate to individuals with learning needs.

Skills:

- S1 Articulate personal philosophy of special education including its relationship to/with regular education.
- S2 Conduct instructional and other professional activities consistent with the requirements of law, rules and regulations, and local district policies and procedures.

CC: Common Core
2. Characteristics of Learners

Knowledge:

- K1 Similarities and differences among the cognitive, physical, cultural, social, and emotional needs of individuals with and without exceptional learning needs.
- K2 Differential characteristics of individuals with exceptionalities, including levels of severity and multiple exceptionalities.
- K3 Characteristics of normal, delayed, and disordered communication patterns of individuals with exceptional learning needs.
- K4 Effects an exceptional condition(s) may have on an individual's life.
- K5 Characteristics and effects of the cultural and environmental milieu of the child and the family including cultural and linguistic diversity, socioeconomic level, abuse/neglect, and substance abuse.
- K6 Effects of various medications on the educational, cognitive, physical, social, and emotional behavior of individuals with exceptionalities.
- K7 Educational implications of characteristics of various exceptionalities.

Skills:

- S1 Access information on various cognitive, communication, physical, cultural, social, and emotional conditions of individuals with exceptional learning needs.

CC: Common Core
3. Assessment, Diagnosis, and Evaluation

Knowledge:

- K1 Basic terminology used in assessment.
- K2 Ethical concerns related to assessment.
- K3 Legal provisions, regulations, and guidelines regarding assessment of individuals.
- K4 Typical procedures used for screening, pre-referral, referral, and classification.
- K5 Appropriate application and interpretation of scores, including grade score versus standard score, percentile ranks, age/grade equivalents, and stanines.

Skills:

- S1 Collaborate with families and other professionals involved in the assessment of individuals with exceptional learning needs.
- S2 Create and maintain records.
- S3 Gather background information regarding academic, medical, and family history.
- S4 Use various types of assessment procedures appropriately.
- S5 Interpret information from formal and informal assessment instruments and procedures.

Knowledge:

- K6 Appropriate use and limitations of each type of assessment instrument.
- K7 Incorporation of strategies that consider the influence of diversity on assessment, eligibility, programming, and placement of individuals with exceptional learning needs.
- K8 The relationship between assessment and placement decisions.
- K9 Methods for monitoring progress of individuals with exceptional learning needs.

Skills:

- S6 Report assessment results to individuals with exceptional learning needs, parents, administrators, and other professionals using appropriate communication skills.
- S7 Use performance data and information from teachers, other professionals, individuals with exceptionalities, and parents to make or suggest appropriate modification in learning environments.
- S8 Develop individualized assessment strategies for instruction.
- S9 Use assessment information in making instructional decisions and planning individual programs that result in appropriate placement and intervention for all individuals with exceptional learning needs, including those from culturally and/or linguistically diverse backgrounds.
- S10 Evaluate the results of instruction.
- S11 Evaluate supports needed for integration into various program placements.

CC: Common Core
4. Instructional Content and Practice**Knowledge:**

- K1 Differing learning styles of individuals with exceptional learning needs and how to adapt teaching to these styles.
- K2 Demands of various learning environments such as individualized instruction in general education classes.
- K3 Curricula for the development of motor, cognitive, academic, social, language, affective, and functional life skills for individuals with exceptional learning needs.
- K4 Instructional and remedial methods, techniques, and curriculum materials.
- K5 Techniques for modifying instructional methods and materials.
- K6 Life skills instruction relevant to independent, community, and personal living and employment.

Skills:

- S1 Interpret and use assessment data for instructional planning.
- S2 Develop and/or select instructional content, materials, resources, and strategies that respond to cultural, linguistic, and gender differences.
- S3 Develop comprehensive, longitudinal individualized programs.
- S4 Choose and use appropriate technologies to accomplish instructional objectives and to integrate them appropriately into the instructional process.
- S5 Prepare appropriate lesson plans.
- S6 Involve the individual and family in setting instructional goals and charting progress.
- S7 Conduct and use task analysis.

Knowledge:

- K7 Cultural perspectives influencing the relationship among families, schools, and communities as related to effective instruction for individuals with exceptional learning needs.

Skills:

- S8 Select, adapt, and use instructional strategies and materials according to characteristics of the learner.
- S9 Sequence, implement, and evaluate individual learning objectives.
- S10 Integrate affective, social, and career/vocational skills with academic curricula.
- S11 Use strategies for facilitating maintenance and generalization of skills across learning environments.
- S12 Use instructional time properly.
- S13 Teach individuals with exceptional learning needs to use thinking, problem-solving, and other cognitive strategies to meet their individual needs.
- S14 Choose and implement instructional techniques and strategies that promote successful transitions for individuals with exceptional learning needs.
- S15 Establish and maintain rapport with learners.
- S16 Use verbal and nonverbal communication techniques.
- S17 Conduct self-evaluation of instruction.

CC: Common Core**5. Planning and Managing the Teaching and Learning Environment****Knowledge:**

- K1 Basic classroom management theories, methods, and techniques for individuals with exceptional learning needs.
- K2 Research-based best practices for effective management of teaching and learning.
- K3 Ways in which technology can assist with planning and managing the teaching and learning environment.

Skills:

- S1 Create a safe, positive, and supportive learning environment in which diversities are valued.
- S2 Use strategies and techniques for facilitating the functional integration of individuals with exceptional learning needs in various settings.
- S3 Prepare and organize materials to implement daily lesson plans.
- S4 Incorporate evaluation, planning, and management procedures that match learner needs with the instructional environment.

Knowledge:

Skills:

- S5 Design a learning environment that encourages active participation by learners in a variety of individual and group learning activities.
- S6 Design, structure, and manage daily routines, effectively including transition time, for students, other staff, and the instructional setting.
- S7 Direct the activities of a classroom paraprofessional, aide, volunteer, or peer tutor.
- S8 Create an environment that encourages self-advocacy and increased independence.

CC: Common Core
6. Managing Student Behavior and Social Interaction Skills

Knowledge:

- K1 Applicable laws, rules and regulations, and procedural safeguards regarding the planning and implementation of management of behaviors of individuals with exceptional learning needs.
- K2 Ethical considerations inherent in classroom behavior management.
- K3 Teacher attitudes and behaviors that positively or negatively influence behavior of individuals with exceptional learning needs.
- K4 Social skills needed for educational and functional living environments and effective instruction in the development of social skills.
- K5 Strategies for crisis prevention/intervention.
- K6 Strategies for preparing individuals to live harmoniously and productively in a multi-class, multiethnic, multicultural, and multinational world.

Skills:

- S1 Demonstrate a variety of effective behavior management techniques appropriate to the needs of individuals with exceptional learning needs.
- S2 Implement the least intensive intervention consistent with the needs of the individuals with exceptionalities.
- S3 Modify the learning environment (schedule and physical arrangement) to manage inappropriate behaviors.
- S4 Identify realistic expectations for personal and social behavior in various settings.
- S5 Integrate social skills into the curriculum.
- S6 Use effective teaching procedures in social skills instruction.
- S7 Demonstrate procedures to increase the individual's self-awareness, self-control, self-reliance, and self-esteem.
- S8 Prepare individuals with exceptional learning needs to exhibit self-enhancing behavior in response to societal attitudes and actions.

CC: Common Core

7. Communication and Collaborative Partnerships

Knowledge:

- K1 Factors that promote effective communication and collaboration with individuals, parents, and school and community personnel in a culturally responsive program.
- K2 Typical concerns of parents of individuals with exceptional learning needs and appropriate strategies to help parents deal with these concerns.
- K3 Development of individual student programs working in collaboration with team members.
- K4 Roles of individuals with exceptionalities, parents, teachers, and other school and community personnel in planning an individualized program.
- K5 Ethical practices for confidential communication to others about individuals with exceptional learning needs.

Skills:

- S1 Use collaborative strategies in working with individuals with exceptional learning needs, parents, and school and community personnel in various learning environments.
- S2 Communicate and consult with individuals, parents, teachers, and other school and community personnel.
- S3 Foster respectful and beneficial relationships between families and professionals.
- S4 Encourage and assist families to become active participants in the educational team.
- S5 Plan and conduct collaborative conferences with families or primary caregivers.
- S6 Collaborate with regular classroom teachers and other school and community personnel in integrating individuals with exceptional learning needs into various learning environments.
- S7 Communicate with regular teachers, administrators, and other school personnel about characteristics and needs of individuals with specific exceptional learning needs.

CC: Common Core

8. Professionalism and Ethical Practices

Knowledge:

- K1 Personal cultural biases and differences that affect one's teaching.
- K2 Importance of the teacher serving as a model for individuals with exceptional learning needs.

Skills:

- S1 Demonstrate commitment to developing the highest educational and quality-of-life potential of individuals with exceptional learning needs.
- S2 Demonstrate positive regard for the culture, religion, gender, and sexual orientation of individual students.
- S3 Promote and maintain a high level of competence and integrity in the practice of the profession.
- S4 Exercise objective professional judgment in the practice of the profession.
- S5 Demonstrate proficiency in oral and written communication.

Knowledge:

Skills:

- S6 Engage in professional activities that may benefit individuals with exceptional learning needs, their families, and/or colleagues.
- S7 Comply with local, state, provincial, and federal monitoring and evaluation requirements.
- S8 Use copyrighted educational materials in an ethical manner.
- S9 Practice within the CEC Code of Ethics and other standards and policies of the profession.

APPENDIX

D

Full Inclusion of Students Who are Blind or Visually Impaired: A Position Statement

"Full Inclusion", a philosophical concept currently advanced by a number of educators, is not a federal requirement of special education law. Proponents of "full inclusion" nevertheless take the position that all students with disabilities must receive their total instruction in the regular public school classroom regardless of individual needs. Unfortunately, "full inclusion" would eliminate all special placements, including "pull out" services, resource rooms and specialized schools. Such an arrangement would be seriously detrimental to the educational development of many students with disabilities.

We, the national organizations of and for the blind listed below are firmly committed to appropriate educational opportunities designed to provide students with the competencies necessary to ensure full participation in society. It is significant to recognize that our field was the first to develop a broad range of special education options beginning with specialized schools as early as 1829, and extending to public school programs since 1900. These options have provided critically important educational preparation for several generations of highly successful and independent blind people. Based on this long and impressive record of success in making optimal use of both special and public school programs to meet the diverse needs of blind students, we strongly agree upon the following:

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- If provided with timely and adequate specialized services by appropriately certified teachers, students who are blind or visually impaired can develop skills that will enable them to achieve success and independence as responsible citizens in a fully integrated society. If these students do not receive appropriate instruction designed to develop competencies that meet the sensory deficits of blindness and low vision, critical learning opportunities will be lost, thus diminishing the potential for future accomplishments. In this context, ample opportunities for instruction in such areas as braille, abacus, orientation and mobility, and use of prescribed optical devices must be made available to students, as needed.
- Educational decisions must be made on a case by case basis consistent with the Individuals with Disabilities Education Act (IDEA) which guarantees a Free Appropriate Public Education in the "Least Restrictive Environment" (LRE) from among a "Full Continuum of Alternative Placements," based on the Individual Education Plan for each student. Educational decisions should not be made simply on the basis of philosophy, limited school budgets, administrative convenience, or concerns about socialization.
- Full inclusion in regular education classrooms for all students with disabilities irrespective of individual needs is in sharp conflict with procedural guarantees of IDEA.

- Least Restrictive Environment and Full Continuum of Alternative Placements are critically important IDEA provisions. LRE is not one sole physical location. It is, rather, a principle, which if properly applied, matches the need of the student with an appropriate school setting which provides meaningful challenges, realistic expectations, and maximum opportunities for achievement and development of healthy self-esteem.
- The regular education classroom may be considered the LRE if the student possesses sufficient readiness and survival skills and can be provided adequate supports, specialized services (from personnel trained in education of the visually impaired), and opportunities to develop skills commensurate with his or her potential. Extreme caution must be exercised so that full inclusion does not result in "full submersion," social isolation, "lowered" self-esteem, poor performance, or a setting in which services are unavailable.
- In cases where the needs of the student cannot be met in the regular classrooms, an alternative education placement must be provided and be recognized as the LRE for that particular student. Such alternative placements should not be negatively viewed as discriminatory or as "segregated" settings when legitimately warranted to develop the needed skill for future integration in school and society.
- Since it has been clearly demonstrated that blind children benefit from interacting with disabled and non-disabled children, both interaction opportunities should be fully encouraged in whatever setting that is considered appropriate. We believe that the mandate in IDEA which states that, "to the maximum extent appropriate, children with disabilities [should be] educated with children who are non-disabled," does not intend that blind children avoid interaction with each other.

We strongly urge that decision makers carefully consider and be sensitive to the impact of reform initiatives on the education of students with visual disabilities. Caution must be exercised to insure that educational philosophy and trends such as full inclusion do not seriously endanger appropriate and specialized services for students who are blind or visually impaired. If properly implemented, IDEA can provide legal safeguards to insure that all individual children can realize their full potential for independence and success.

American Council for the Blind
Association for Education and
Rehabilitation for the Blind and
Visually Impaired

Canadian Council for the Blind

National Federation of the Blind

American Foundation for the Blind
Blinded Veterans Association

Canadian National Institute
for the Blind

National Library Service for the
Blind and Physically Handicapped

APPENDIX

E

The National Agenda for the Education of Children and Youth with Visual Impairments, Including Those with Multiple Disabilities: Goal Statements

**The National Agenda
for the Education of Children and Youths with Visual Impairments,
Including Those with Multiple Disabilities**

Corn, A., et.al. (1995).
American Foundation for the Blind

1. Students and their families will be referred to an appropriate education program within thirty days of identification of a suspected visual impairment.
2. Policies and procedures will be implemented to ensure the right of all parents to full participation and equal partnership in the education process.
3. Universities, with a minimum of one full-time faculty member in the area of visual impairment, will prepare a sufficient number of educators of students with visual impairments to meet personnel needs throughout the country.
4. Service providers will determine caseloads based on the needs of students and will require ongoing professional development for all teachers and orientation and mobility instructors.
5. Local education programs will ensure that all students have access to a full array of placement options.
6. Assessment of students will be conducted, in collaboration with parents, by personnel having expertise in the education of students with visual impairments.
7. Access to developmental and educational services will include an assurance that instructional materials are available to students in the appropriate media and at the same time as their sighted peers.
8. Educational and developmental goals, including instruction, will reflect the assessed needs of each student in all areas of academic and disability-specific core curricula.

APPENDIX

F

The Role and Function of the Teacher of Students with Visual Handicaps: CEC-DVI Position Statement by Spungin and Ferrell

The Role and Function of the Teacher of Students with Visual Handicaps

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American Foundation for the Blind

and

Kay Alicyn Ferrell
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Infants, children, and youth with visual handicaps receive special education and related services in a variety of settings that bring them into contact with a range of personnel. Perhaps the most important member of this team of professionals is the teacher of students with visual handicaps, whose specialized training and experience often establish him or her as the individual best qualified to address the unique learning needs created by a visual handicap. Because of the variety of placement options available, however, there is often confusion about the role, function, and mandate of the teacher of students with visual handicaps.

It is the position of the Division for the Visually Handicapped that every infant, child, and youth with a visual handicap is entitled to the services of a teacher of students with visual handicaps, regardless of the severity of the disability or the presence of additional handicapping conditions. The nature of these services will depend on the individual needs of the student and will vary accordingly. In some cases, the teacher of students with visual handicaps will be the primary instructor of the infant, child, or youth with a visual handicap, while in other cases the teacher of students with visual handicaps will act as consultant to other teachers providing instruction. In all cases, it is the responsibility of the teacher of students with visual handicaps to carry out the following specialized activities:

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I. Assessment and Evaluation

- A. Participate in the multidisciplinary assessment of infants, children, and youth with visual handicaps, assuming the primary responsibility to:
 - 1. Perform functional vision assessments.
 - 2. Obtain and interpret all ophthalmological, optometric, and functional vision reports and the implications thereof for educational and home environments, to families, classroom teachers, and other team members.
 - 3. Perform communications skills assessments in reading, writing, and listening.
 - 4. Recommend appropriate specialized evaluation as needed, such as low vision, orientation and mobility, physical therapy, occupational therapy, psychological, and adaptive physical education.

5. Assist families to assess their own strengths and needs regarding their children's visual, academic, and functional development.

- B. Participate in the multidisciplinary team to develop Individualized Family Service Plans (IFSPs), Individualized Education Programs (IEPs), and other similar documents, for infants, children, and youth with visual handicaps, assuming the primary responsibility to:
1. Contribute to statements of present levels of performance by discussing how performance is affected by the visual handicap and by providing information on students' learning style, utilization of visual information, and other strengths unique to individual infants, children, and youth with visual handicaps.
 2. Identify goals and objectives in specialized areas related to the visual needs of the student.
 3. Identify instructional methods and materials for meeting goals and objectives.
 4. Recommend appropriate service delivery options, including class placement, physical education, related services, specialized equipment, adaptations in testing procedures, and time frames for implementation.
- C. Recommend as early as possible appropriate reading and writing media for the child with visual handicaps. Teachers of students with visual handicaps base such recommendations on the specific needs of individual students, as demonstrated by a thorough assessment that accounts for such factors as: reading distance, reading rates and accuracy, portability of reading skills, visual fatigue, and tactual sensitivity.

II. Educational and Instructional Strategies: Learning Environment

The teacher of students with visual handicaps usually acts as the primary mediator of the learning environment for children with visual handicaps and implements various strategies to facilitate students' assimilation into the classroom and school environment. In order to accomplish this, the teacher of students with visual handicaps takes steps to:

- A. Assure that the student has all educational materials in the appropriate media.
- B. Assure that the student is trained in the use of, and has available, all devices and technological apparatus necessary for learning.
- C. Instruct the student in academic subjects and activities and developmental skills requiring adaptation and reinforcement as a direct result of the visual handicap.
- D. Recommend seating and other environmental modifications that maximize students' utilization of visual information and facilitate movement of the student with visual handicaps within the class.
- E. Assure that the teacher or other professional(s) providing direct instruction fully understands the unique needs of infants, children, and youth with visual handicaps.

- F. Suggest modifications needed in assignments or testing procedures.
- G. Collaborate with teachers and other professionals regarding various methods for including students with visual handicaps in routine learning experiences.
- H. Act as a catalyst in developing understanding of visual loss by children without disabilities.

III. Education and Instructional Strategies: Adapting the Curriculum

Children with visual handicaps have the same curriculum needs as all children, but their visual handicap itself often imposes restrictions on their ability to access any curriculum presented in the usual method of learning and teaching. In order to assure access, the teacher of students with visual handicaps is responsible for providing direct instruction in the following areas:

- A. Braille Reading and Writing -- including braille readiness, braille reading instruction, and writing skills. These skills usually require introduction to the mechanical aspects of reading and writing, including spatial orientation to the page and use of the braille writer and slate and stylus, and include application and reinforcement of decoding, comprehension, and encoding strategies (introduced by the classroom teacher) to braille materials. The teacher of students with visual handicaps also provides instruction in braille mathematics, braille music, the computer braille code, and foreign language braille codes.
- B. Visual Efficiency -- For the student with low vision, the utilization of visual information underscores achievement in every skill area: academic, psycho-motor, self-help, vocational and social skills. The teacher of students with visual handicaps instructs infants, children, and youth in the utilization and interpretation of visual information under a variety of conditions.
- C. Large Print and Optical Devices -- The teacher of students with visual handicaps instructs with low vision in the utilization of reading aids (such as enlarged print, acetate sheets, reading stands, magnifiers, and telescopes) in order to participate independently in regular classroom activities.
- D. Orientation and Mobility -- Much of the orientation and mobility needs of students with visual handicaps are the responsibility of qualified orientation and mobility instructors. (In some cases, the teacher of students with visual handicaps is dually certified both as a teacher and an orientation and mobility instructor.) The responsibilities of, and the relationship between the teacher of students with visual handicaps and the orientation and mobility instructor must be clearly defined. It is possible that the teacher of students with visual handicaps will assume responsibility for assuring that students develop in sensory motor, gross, and fine motor domains, while the orientation and mobility specialist assumes responsibility for instruction in environmental orientation and travel within the community. Children with visual handicaps must be taught to move in space and to be aware of the environment around them. They must learn to use tactual and auditory cues to identify their position in space and the relative position of other persons and objects around them.

- E. Handwriting -- or the student with low vision, certain aspects of both manuscript and cursive handwriting (e.g., size, configuration, place-keeping, review) are often the responsibility of the teacher of students with visual handicaps. The teacher of students with visual handicaps also teaches signature writing, and if appropriate, additional handwriting skills to students who are blind.
- F. Typewriting -- For most students with visual handicaps, typing may be the major means of communication between the child and his or her peers, family members, and teachers. Typing and keyboarding skills are carefully and thoroughly taught by the teacher of students with visual handicaps as soon as the student has sufficient fine motor skills.
- G. Technology -- The teacher of students with visual handicaps is responsible for collaborating with the teacher of computer technology to assist the student with visual handicaps in computer access through software and hardware applications that produce screen and print enhancements, speech access, and braille output.
- H. Listening Skills -- Instruction to develop listening skills is important to students with visual handicaps as a foundation for aural learning and reading, as well as for mobility clues, social conversation, and interpretation of a variety of auditory signals received from the environment. Listening becomes particularly important in the secondary grades, when print reading assignments become long and laborious. Students with visual handicaps begin to develop listening skills in infancy, and these skills are sequentially and deliberately expanded during the school years.
- I. Study Skills -- Skimming braille or large print materials, outlining in braille or large print, searching for significant information in recorded materials, and other note taking and report-writing skills are fundamental study skills which require instruction by the teacher of students with visual handicaps because of the unfamiliarity of the media to most classroom teachers.
- J. Motor Development -- The teacher of students with visual handicaps is knowledgeable about potential problem areas in motor development for infants, children, and youth with visual handicaps (such as body image, body in space concepts, visual motor coordination, abnormal reflex patterns, locomotion, rotation, weight transfer, gait, posture, etc.). The teacher of students with visual handicaps works collaboratively with early interventionists, physical education teachers, orientation and mobility specialists, and occupational or physical therapists to develop and enhance motor skills in infants, children and youth with visual handicaps.
- K. Concept Development -- The teacher of students with visual handicaps shares with other professionals the responsibility for the development of basic concepts, which is often at risk without vision to mediate and integrate other sensory information. Future learning is dependent upon the student's thorough understanding of basic spatial, environmental, social, and mathematical concepts.
- L. Reasoning -- The ability to reason, especially in the abstract, may require specific instruction from the teacher of students with visual handicaps.

Students may need assistance in the development of decision-making skills, problem solving, and learning to live with occasional frustration and failure.

- M. **Tactual Skills** -- The development of tactual skills is not confined to the reading of braille. The teacher of students with visual handicaps provides instruction in tactual skills in a variety of environments and functional applications, assisting children with visual handicaps from infancy to use their fingers and hands well in order to explore, identify, discriminate, and appreciate all tangible materials in the environment.
- N. **Communication Development** -- Infants, children, and youth with visual handicaps may experience difficulties in language acquisition and application. Teachers of students with visual handicaps are knowledgeable about the ways in which a visual handicap can affect receptive and expressive communication and employ specific strategies to encourage use of functional, reality-based language. In addition, teachers of students with visual handicaps collaborate with other team members instructing students with multiple disabilities in the use of manual communication, communication boards, and other augmentative communication techniques. Visual handicaps impose restrictions on the use of these procedures, and the teacher of students with visual handicaps helps to devise alternative methods to make them accessible to infants, children, and youth with visual handicaps.
- O. **Activities of Daily Living** -- Through knowledge of the activities and techniques of daily living or personal management skills is needed to create independence so that students with visual handicaps may integrate more easily into their culture and society. Teachers of students with visual handicaps share responsibility with family members and other professionals for instruction in such areas as personal hygiene, eating habits, manners, dressing, grooming, verbal and nonverbal communication, and developing a positive self image.
- P. **Physical Education** -- Teachers of students with visual handicaps assist physical education teachers in integrating the child with visual handicaps into the regular physical education curriculum by suggesting strategies for participation in team and individual sports. Visual handicaps often unnecessarily restrict movement and may result in poor physical fitness, unless systematic efforts are made to include children with visual handicaps in physical education and recreational activities.
- Q. **Human Sexuality** -- Teachers of students with visual handicaps, parents and others share the responsibility for gradual, sequential instruction in human sexuality for students with visual handicaps. Because programs in sex education for students without disabilities assume that much visual information has been previously attained, the student with visual handicaps may need a specific hands-on curriculum taught by appropriate, well-prepared professionals.
- R. **Career Education** -- Career education curricula that are developed for children without visual handicaps may need supplementary instruction from a teacher of students with visual handicaps. This instruction may include field trips into the community to explore work opportunities and job requirements, interviews with adults with visual handicaps about their various occupations, and assessment of individual abilities.

- S. Vocational Counseling -- Vocational counseling and transition to vocational opportunities are integral parts of programs designed for students with visual handicaps, and the teacher of students with visual handicaps, in conjunction with the vocational counselor or teacher, involves students with visual handicaps and their parents in this counseling process. The teacher of students with visual handicaps assists in the assessment of vocational strengths and weaknesses and facilitates students' participation in work-study, vocational training, and other appropriate experiences.
- T. Leisure and Recreation -- The teacher of students with visual handicaps, parents, and community agencies share a responsibility to expose the student to, and provide learning opportunities in, a wide variety of leisure time activities which have carry-over value to adult life.
- U. Transition -- The teacher of students with visual handicaps assists in the smooth transition of infants, children, and youth with visual handicaps from one placement to another, by working with other team members, including parents, to identify appropriate options, preparing new teachers to accept the students with visual handicaps, and providing ongoing consultation. Such services regularly occur at the transition from early intervention to preschool programs, from preschool to school-age programs, and from secondary to adult services, but may also be necessary when a major change in placement occurs (e.g., from regular class to special class, or from residential school to regular class, placement.), or even in the regular grade level progression within the same educational facility.

IV. Guidance and Counseling

Teachers of students with visual handicaps provide guidance and counseling to infants, children, and youth with visual handicaps and their families to:

- A. Interpret implications of visual impairment for overall development.
- B. Facilitate understanding of society's attitudes concerning visual impairment and to assist students and families to formulate their responses to misconceptions, lowered expectations, and prejudice.
- C. Explore similarities and differences in relation to all children.
- D. Develop social awareness of self, others, and the community at large.
- E. Encourage social interactions with peer groups.
- F. Identify functional, academic, and vocational potential.
- G. Encourage home involvement in program objectives.
- H. Promote independence in infants, children, and youth with visual handicaps.
- I. Plan for adult life by exploring options for college, technical or trade school, job coaching programs, industrial enclaves, and other post-secondary

placements, as well as identifying independent living arrangements in the community.

- J. Refer to other sources for additional guidance and counseling services.

V. Administration and Supervision

The teacher of students with visual handicaps, depending on the model(s) of service being utilized (residential school, special class, resource room, itinerant or teacher consultant) has a variety of administrative roles. In a large program, this may include supervision of other teachers of students with visual handicaps, in addition to working with Directors of Special Education, principals, regular classroom teachers, and other educational and related services personnel. Some of the most common activities in this area include:

- A. Communication with Administrators -- Teachers of students with visual handicaps keep administrators informed concerning:
1. Student information (e.g., visual status, grade level, prototype).
 2. Program goals and activities.
 3. Program evaluation.
 4. Screening and referral procedures.
 5. Relationships between the program for students with visual handicaps and regular and special education programs and support services.
 6. Funding requirements for consultation, instruction, salaries, travel time, travel expenses, instructional materials, preparation time, conferences and benefits.
 7. In-service needs for teachers and consultants of students with visual handicaps, as well as for other regular and special education personnel.
 8. Staff scheduling requirements, including adequate time for planning, preparation, report writing, travel, direct instruction, team meetings, and staff conferences.
 9. Physical facilities, including design and selection of classroom environments and office space, as well as adequate storage space for instructional materials and equipment.
 10. Student scheduling, including preparation of a master schedule to be given to the supervisor and principal(s) of the building (s) in which students are served.
 11. Equipment needs, particularly in the area of technology, but also including materials production if necessary.

12. Availability of grants for curriculum expansion, including acquisition of materials and technological devices.

B. Record Keeping

1. Maintain records of student assessments, IEPs, IFSPs (and other planning documents), periodic reviews, progress reports, and signed parental release forms.
2. Maintain material and equipment requests.
3. Exchange information about students with visual handicaps with appropriate personnel, following school district or agency policies regarding confidentiality.
4. Maintain program-wide student census information for purposes of annual count and eligibility for federal quota funds through the American Printing House for the Blind.

C. Casefinding and Student Referral Procedures

1. Act as a vision consultant for system-wide screening, materials, follow-up and recommendations.
2. Participate in school district's annual Child Find program.
3. Maintain a referral/communication system with nurses and other school staff.

VI. School Community Relations

School and community involvement requires the teacher of students with visual handicaps to be prepared to interpret the program to school personnel, boards of education, and other groups within the community. Activities include:

A. Acting as a liaison for the program for students with visual handicaps with:

1. Private and public agencies and schools, including those serving individuals with visual handicaps.
2. Other public and private resources within the community.
3. Parents and families (including extended family members).
4. Medical specialists and hospitals, particularly neonatal intensive care units.
5. Related services personnel.
6. Early interventionists.
7. Recreation resources.

8. Transition specialists.
9. Parent and advocacy groups.
10. Child study teams.
11. Volunteer groups.

B. Services Development

1. Coordinate ancillary groups and individuals, such as classroom aides, transcribers, recordists, readers for students with visual handicaps, counselors, orientation and mobility instructors, and rehabilitation teachers.
2. Assist in the initiation of new services as well as coordinating existing ones to bring the varied and necessary related services to the educational program.
3. Maintain on-going contact with parents to facilitate understanding of their child's abilities, progress, future goals, community resources, etc.
4. Attend professional meetings (in and out of the district) concerned with the education of students with visual handicaps.
5. Keep abreast of new developments in the education of infants, children and youth with visual handicaps.
6. Prepare grants for curriculum expansion and acquisition of materials and equipment.

The role of the teacher of students with visual handicaps is multifaceted and requires recognition by administrators that responsibilities and time commitments are unpredictable and may increase geometrically with each addition to the caseload. The amount of instruction and consultation required will vary according to individual student needs and will even vary for an individual student from one week to the next. Both administrators and teachers must approach their roles with flexibility and creativity in order to meet the dynamic, complex needs of infants, children, and youth with visual handicaps and their families within a rapidly changing service delivery system.

APPENDIX

G

The Core Curriculum for Blind and Visually Impaired Students, Including Those with Additional Disabilities by Phil Hatlen

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The Core Curriculum for Blind and Visually Impaired Students, Including Those With Additional Disabilities

PHIL HATLEN

Some years ago, a reporter asked a prominent blind woman, "What is it that blind people would want from society?" Her response was, "The opportunity to be equal and the right to be different."

Opportunities for equality grew tremendously in the 20th century, as Lowenfeld (1975) so graphically portrayed in *The Changing Status of the Blind: From Separation to Integration*:

In the field of education then the move from separation to integration is evident. Educational provisions for blind children, the administration of these educational provisions, and teacher preparation, all moved from special or separated arrangements to integrated ones. This move has been consistently spearheaded and supported by legislation (p. 117).

Lowenfeld believed that the American creed (all of us are equal under the law) had resulted in educational integration for blind and visually impaired students. Integration with their sighted peers, which began for visually impaired students at the turn of the century, has provided these students with the opportunity to be equal. All of us—parents, consumers, and professionals—continue to promote equal opportunities for blind persons. But how do we feel about, and how do we react to, "the right to be different?" What did this woman mean by two remarks that seem diametrically opposite? Perhaps she meant that print and Braille are equal, but very different; that the need for independent travel is similar for sighted and blind persons, but that blind people learn the skills

very differently. Perhaps she was emphasizing that blind people should have the opportunity to learn the same knowledge and skills as sighted people, but that much of what sighted people learn incidentally and spontaneously blind people learn differently.

The integration (soon to be called *mainstreaming* and then *inclusion*) of blind students into regular classrooms in great numbers, beginning in the 1950s, brought with it the belief that adapted academic material was all that visually impaired students needed to be able to learn in the regular classroom. Few, if any, changes or additions were made to the curricula offered to these students. The efforts to include visually impaired students in regular classrooms sometimes attempted to provide "the opportunity to be equal" without recognizing the student's "right (and need) to be different."

Visually impaired students have succeeded in mastering the curriculum developed for sighted students. If the educational system provides students who have a necessary foundation of experiential learning with appropriate educational materials, and if there are excellent support services, including qualified and credentialed teachers of visually impaired students and orientation and mobility instructors, then the existing curriculum for sighted students will provide the visually impaired student the "opportunity to be equal."

However, "the right to be different" clearly implies that there is more to educating visually impaired students than providing them with curriculum identical to that of sighted students. This added curriculum that is specific to visually impaired students is well known, but has not been diligently implemented. Could it be that parents and professionals have no problem with the "opportunity to be equal" but have difficulty with "the right to be different?"

For many reasons, professionals in education for visually impaired learners have not easily accepted the concept that visually impaired students have educational needs that are in addition to the curriculum required for sighted students. Some are loathe to give up the belief that there is no difference between the educational needs of sighted students and visually impaired students. Others have difficulty accepting the idea that an expanded curriculum is the responsibility of educators; time or size of caseload, or both, make it impossible for others to add to their teaching responsibilities. Goal 8 of the National Agenda (see page 17) directly addresses this issue and will bring educators and parents together to ensure an appropriate education based on this expanded core curriculum for American young people who are blind and visually impaired, including those with additional disabilities.¹

What Is a Core Curriculum?

Educators define core curriculum as the knowledge and skills, generally those related to academic subjects, a student should have learned by high school graduation. Each state in the United States establishes minimum standards for high school graduation,

¹The term *including those with additional disabilities*, which appeared in the title, has not been repeated but should be assumed under the definition of *blind and visually impaired students*.

and this core curriculum becomes the foundation for almost all learning, from kindergarten through high school.

Educators of visually impaired students can use their expertise in curriculum adaptation to adapt any curriculum and make it readily available for visually impaired learners. If accessibility to learning materials is the only problem the visual impairment presents, then educating visually impaired students can be solved by adaptation of the existing core curriculum.

But most professionals firmly believe that visually impaired students need an *expanded* core curriculum that requires additional areas of learning. Experiences and concepts casually and incidentally learned by sighted students must be systematically and sequentially taught to the visually impaired student.

Professionals and parents have discussed the concept of a core curriculum for visually impaired learners for many years. It has had many names: the specialized curriculum, specialized needs, the unique curriculum, unique needs, nonacademic curriculum, the dual curriculum, and most recently, the disability-specific curriculum.

These terms sometimes distract from the important issue. Using the term core curriculum for blind and visually impaired students to define the basic educational needs for these young people conveys the same message as the original core curriculum. Words like *specialized*, *unique*, and *disability-specific* are not needed and, indeed, may give an erroneous connotation to basic educational needs. Those terms imply two separate lists of educational needs for visually impaired students: one list that contains the elements of a traditional core curriculum; the second a list of *disability-specific* needs. Two lists might provide educators with options, such as a list of requirements and one of electives. There should be only one list—the required core curriculum for visually impaired students.

The expanded core curriculum now being promoted is not new. Elements of it have been known for years. References to grooming skills date back to 1891. The need for social interaction skills appeared in the literature in 1929 and again in 1948. Between 1953 and 1975, more than two dozen books and articles were written about daily living skills and visually impaired students. Much more has been written about orientation and mobility and career education.

The Expanded Core Curriculum for Blind and Visually Impaired Children and Youths

The lists below incorporate the basic subject competencies now required by states and the competencies of the expanded core curriculum for visually impaired students. Some of the skills—compensatory or functional academic skills, including communication modes; orientation and mobility; social interaction skills, visual efficiency skills—are either not in the regular core curriculum or not in it with sufficient specificity to meet the needs of visually impaired students. Others—independent living skills, recreation and leisure skills, career education, and technology—although ad-

dressed in the regular core curriculum, are done so inadequately for the needs of visually impaired students.

Existing Core Curriculum		Expanded Core Curriculum	
English language arts	Other languages to the extent possible	Compensatory academic skills, including communication modes	Orientation and mobility
Mathematics	Science		
Health	Physical education	Social interaction skills	Independent living skills
Social studies	History	Recreation and leisure skills	Career education
Economics	Business education	Use of assistive technology	Visual efficiency skills
Fine arts	Vocational education		

Compensatory or Functional Academic Skills, Including Communication Modes

In this area, a distinction must be made between compensatory skills and functional skills. Compensatory skills are those that blind and visually impaired students need to access all areas of core curriculum. Mastery of compensatory skills will usually mean that the visually impaired student has access to learning in a manner equal to that of sighted peers. Functional skills refers to the skills that students with multiple disabilities learn that provide them with the opportunity to work, play, socialize, and take care of personal needs to the highest level possible.

These academic skills include learning experiences such as concept development, spatial understanding, study and organizational skills, speaking and listening skills, and the adaptations necessary for accessing all areas of the existing core curriculum. Communication needs will vary, depending on the degree of functional vision, the effects of additional disabilities, and the task to be done. Children may communicate through Braille, large print, print with the use of optical devices, regular print, tactile symbols, a calendar system, sign language, recorded materials, or combinations of these means. Whatever the choice of materials, each student with a visual impairment will need instruction from a teacher with professional preparation in each of the compensatory and functional skills they need to master. These compensatory and functional needs of the visually impaired child are significant.

Orientation and Mobility

This is a vital area of learning, which requires delivery by teachers with specific preparation. It emphasizes the fundamental need and basic right of visually impaired people to travel as independently as possible, enjoying and learning to the greatest extent possible from the environment through which they are passing. Students will need to learn about themselves and the environment in which they move—from basic body image to independent travel in rural areas and busy cities.

Social Interaction Skills

Sighted children and adults have learned almost all their social skills by visually observing other people and behaving in socially appropriate ways based on that information. Blind and visually impaired individuals cannot learn skills of social interaction in this casual and incidental fashion. They learn them through careful, conscious, and sequential teaching. Instruction in these skills is such a fundamental need that it can often mean the difference between social isolation and a satisfying and fulfilling life as an adult.

Independent Living Skills

This area, often referred to as *daily living skills*, consists of all the tasks and functions people perform, according to their abilities, in order to live as independently as possible. These curricular needs are varied and include among others skills in personal hygiene, food preparation, money management, time monitoring, and organization. The existing core curriculum addresses some independent living skills, but they often are introduced as “splinter skills,” appearing in learning material, disappearing, and then re-appearing. This approach will not adequately prepare blind and visually impaired students for adult life. Traditional classes in home economics and family life are not enough to meet the learning needs of most visually impaired students because they assume a basic level of knowledge, acquired incidentally through vision. As with the skills of social interaction, blind and visually impaired students cannot learn these skills without direct, sequential instruction by knowledgeable people.

Recreation and Leisure Skills

The existing core curriculum usually addresses the needs of sighted students for physical fitness through physical education in the form of team games and athletics. Many activities in physical education are excellent and appropriate for visually impaired students, but these students also need to develop recreational and leisure activities that they can enjoy throughout their adult lives. Sighted people usually select such activities by visually observing them and choosing those in which they wish to participate. Recreation and leisure skills must be deliberately planned and taught to blind and visually impaired students and should focus on the development of life-long skills.

Career Education

Many of the skills and knowledge offered to all students through vocational education will not be sufficient to prepare blind and visually impaired students for adult life. They will also need career education offered for them specifically because here, too, general instruction assumes a basic knowledge of the world of work based on prior visual experiences. Career education in an expanded core curriculum should begin in the earliest grades to give the visually impaired learner of all ages the opportunity to learn firsthand about the variety of work people do. It will give the student chances to explore strengths and interests in a systematic, well-planned manner. Unemployment and underemployment are leading problems facing adult visually impaired people in the United States, making this portion of the expanded core curriculum vital to students.

Technology

Technology is a tool to unlock learning and expand the horizons of students. It is not, in reality, a curriculum area, but it is added to the expanded core curriculum because of the special place it occupies in the education of blind and visually impaired students. Technology can be a great equalizer. For the Braille user, it will produce material in Braille for personal use and then in print for the teacher, classmates, and parents. Technology enables blind people to store and retrieve information and brings a library under the fingertips of the visually impaired person. It enhances communication and learning and expands the world of blind and visually impaired persons in many significant ways.

Visual Efficiency Skills

The visual acuity of children diagnosed as visually impaired varies greatly. With thorough, systematic training, most students with functional vision can learn to use their remaining vision better and more efficiently. Educational responsibility for performing a functional vision assessment, planning appropriate learning activities for effective visual use, and teaching students to use their functional vision effectively and efficiently falls to the professionally prepared teacher of visually impaired learners.

It is difficult to imagine that a congenitally blind or visually impaired person could be entirely at ease within the social, recreational, and vocational structure of the general community without mastering the elements of the expanded core curriculum. We know that unless congenitally blind and visually impaired students learn skills such as orientation and mobility, social interaction, and independent living they are at high risk for lonely, isolated, unproductive lives. For blind and visually impaired people, accomplishments and joys such as shopping, dining, attending and participating in recreational activities are a right, not a privilege. Responsibilities such as banking, taking care of health needs, and using public and private services are a part of a full life for

every one, including those who are blind or visually impaired. Adopting and implementing a core curriculum for blind and visually impaired students, including those with additional disabilities, will assure students of the opportunity to function well and completely in the general community.

This expanded core curriculum epitomizes the "right" of the visually impaired student "to be different." It is the heart of the responsibility of educators serving visually impaired students.

Children With Additional Disabilities

The components of the expanded core curriculum give educators the means to address the needs of visually impaired children with additional disabilities. The educational requirements of these children are often not met because their lack of vision is considered "minor," especially if the child has severe cognitive and physical disabilities. Appropriate professionals can further define each area in the expanded core curriculum to address the educational issues facing these children and assist parents and educators to fulfill their needs.

The Delivery of the Core Curriculum for Blind and Visually Impaired Students

For too many years, educators have behaved as though they were unaware of the unique and specialized needs of blind and visually impaired students. The outcome is a modern tragedy; too many products of our educational efforts live isolated, troubled lives. For too many years educators have known the content of the curricula that would equalize the education of blind and visually impaired learners by neutralizing the effects of visual impairments on incidental learning. And for too many years educators have found reasons not to implement the expanded core curriculum.

Once the profession of educators for visually impaired learners and parents of visually impaired students accept the necessity of the expanded core curriculum, how can they deliver the expanded core curriculum to visually impaired learners?

The additional learning experiences contained in the expanded core curriculum are not easy to implement. They will be difficult to complete in 12 years of education, especially for students who are high academic learners. They require time to teach, and the need for them does not diminish with age or competency. At this time, no single, simple method assures visually impaired students of accessing both traditional and expanded core curricula within the same length of time as their sighted peers. This remains a significant, but attainable challenge.

The professionally prepared teacher of visually impaired students must be responsible for assessment, instruction, and evaluation in unique and specialized curricular areas. This educator needs to teach the necessary skills and knowledge or to orchestrate their teaching by using other community resources.

The competencies in an expanded core curriculum require allocating educational

time to teach these skills. Programming that appropriately addresses all of the educational needs of blind and visually impaired students must assume that most students will need sizable periods of time to master the competencies required in the expanded core curriculum. If the profession does not demand that this time be made available, it does a disservice to students with visual impairments and may disable them in their efforts to successfully make the transition from school to adulthood.

The expanded core curriculum must become the unifying issue among educators for visually impaired students. The profession must adopt it as the education that blind and visually impaired students need. Then the profession has the enormous task of carrying the curriculum message to parents, administrators, and the public at large. The message must transcend fiscal issues, conflicting philosophical and political positions, and the doubts and misgivings of educators and parents.

The spotlight must be on the individual child. The first step must be a thorough assessment of the child, covering every area of the expanded core curriculum. Using assessment results and invaluable information from parents, the child's IEP team must develop goals and objectives for that child, based on assessment. If assessment has truly covered every area of the expanded core curriculum, there probably will be goals and objectives for each area. The task of meeting, or orchestrating the meeting of, all goals and objectives will fall to the professional teacher for visually impaired children. Decisions must be made on placement, on priorities, and on frequency and duration of instruction. Care must be taken that the competencies contained in the expanded core curriculum receive equal attention with the academic competencies stressed in the existing curriculum.

A Call to Action for Implementation

The Advisory Council of the National Agenda calls all professionals and parents to action on this issue. Action requires three components:

- Familiarity — with the expanded core curriculum and the reasons why it is needed
- Acceptance — of the need to implement the expanded core curriculum
- Commitment — by educators and parents to change beliefs so that the expanded core curriculum will be implemented

Implementation means that our lives as professionals and parents will be dramatically changed; parents and professionals will become partners in preparing their children for a rich and fulfilling adult life. And, finally, implementation means that the blind and visually impaired students to whom we have committed our love, our hopes, and our talents and gifts for teaching will enjoy a full, exciting, and productive life.

APPENDIX H

Directory of Resources

American Council of the Blind (ACB)
Council of Families with Visual Impairment
1515 15th Street, N.W., Suite 720
Washington, D.C. 20005
(800) 424-8666 (202) 467-5081
FAX: (202) 467-5085
URL: <http://www.acb.org>

Membership organization of persons who are blind and parents of children who are blind or visually impaired

American Foundation for the Blind (AFB)
11 Penn Plaza
Suite 300
New York, NY 10001
(800) 232-5463 (212) 502-7600
URL: <http://www.afb.org>

National foundation providing publications, program initiatives and services to enable people who are blind or visually impaired to achieve equality of access and opportunity

American Printing House for the Blind (APH)
1839 Frankfort Avenue
Louisville, KY 40206
(800) 223-1839 (502) 895-2405
FAX: (502) 895-1509
URL: <http://www.aph.org>

Producer of specialized and adapted educational books and materials for children who are blind and visually impaired; Maintains the LOUIS on-line reference catalog of textbooks in accessible media

Association for the Education and Rehabilitation of the
Blind and Visually Impaired (AER-BVI)
4600 Duke Street
Alexandria, VA 22304
(703) 823-9690
FAX: (703) 823-9695
URL: <http://www.aerbvi.org>

Professional organization of educators and rehabilitation professionals who work with individuals who are blind and visually impaired

Council for Exceptional Children (CEC-DVH)
Division for Visually Handicapped
1920 Association Drive
Reston, VA 22091-1589
(888) 232-7733 (703) 620-3660
FAX: (703) 264-9494
URL: <http://www.cec.sped.org>
Professional organization of educators of students who are
visually handicapped

Descriptive Video Service, WGBH (DVS)
125 Western Avenue
Boston, MA 02134
(617) 492-2777 x 3490
URL: <http://www.wgbh.org/dvs>
Producer of audio described videos

Hadley School for the Blind
700 Elm Street
Winnetka, IL 60093
(800) 323-4238 (847) 446-8111
URL: <http://www.hadley-school.org>
International distance educational school providing training for blind persons
and their family members

Helen Keller National Center for Deaf-Blind Youths and Adults
111 Middle Neck Road
Sands Point, NY 11050
(516) 944-8900 or TDD (516) 944-8637
FAX: (516) 944-7302
URL: <http://www.helenkeller.org>
National organization to assist individuals who are deaf-blind

National Braille Association, Inc. (NBA)
3 Townline Circle
Rochester, NY 14623-2513
(716) 427-8260
URL: <http://members.aol.co/nbaoffice/>
Membership organization of certified Braille transcribers

National Federation of the Blind (NFB)
National Organization of Parents of Blind Children
1800 Johnson Street
Baltimore, MD 21230
(410) 659-9314

URL: <http://www.nfb.org>

Membership organization of persons who are blind and parents of children who are blind or visually impaired

National Association for Parents of the Visually Impaired, Inc. (NAPVI)
P.O. Box 317
Watertown, MA 02272-0317
(800) 562-6265 (617) 972-7441

URL: <http://www.spedex.com/NAPVI>

Membership organization of parents of children who are visually impaired

National Library Service for the Blind and Physically Handicapped (NLS)
Library of Congress
1291 Taylor Street, N.W.
Washington, DC 20542

(800) 424-8567 (202) 707-5100

URL: <http://LCweb.loc.gov/nls/nls.html>

Federal agency which provides library service for persons who are blind or physically handicapped

Recording for the Blind and Dyslexic, Inc. (RFB&D)
20 Roszel Road
Princeton, NJ 08540

(800) 221-4792 (609) 452-0606

FAX: (609) 987-8116

URL: <http://www.rfbd.org>

Producer of recorded and computerized texts and library materials for individuals who are blind or dyslexic

APPENDIX

I

Vision Related Web Sites and Links

The following is a list of special interest groups that share information via E-mail which may be helpful in program planning. Descriptions are provided where available.

Note: to receive one mail summary a day rather than multiple messages, you will need to specify in your subscription message: set <name digests> (See example at bottom of this page for Information and Technology for the Disabled Journal.

oandm@msu.edu: A list for the discussion of topics related to Orientation and Mobility. To subscribe, send an e-mail message to listserv@msu.edu and include in the body of the message: subscribe oandm <firstname> <last-name>

blindnews@vm1.nodak.edu: A list that deals with issues of people who are visually impaired. To subscribe, send an e-mail message to listserv@vm1.nodak.edu and include in the body of the message: subscribe blindnws <firstname> <lastname>

blind-I@uafsysb.uark.edu: A list that discusses computer use by and for people who are blind. To subscribe, send an e-mail message to listserv@uafsysb.uark.edu and include in the body of the message: subscribe blind-I <firstname> <lastname>

deafblnd@ukcc.uky.edu: Dual sensory impairment (deaf-blindness) is the topic of this forum. The mission of DEAFBLND is to share information, inquiries, ideas, and opinions on matters pertaining to dual sensory impairment. To subscribe, send an e-mail message to listserv@ukcc.uky.edu and include in the body of the message: subscribe deafblnd <firstname> <lastname>

Lowvis@sjuvm.stjohns.edu: The clinical low vision list. To subscribe, send an e-mail message to listserv@sjuvm.stjohns.edu and include in the body of the message: subscribe lowvis <firstname> <lastname>

listserv@sjuvm.stjohns.edu: Information and Technology for the Disabled Complete Journal. To subscribe, send an e-mail message to listserv@sjuvm.stjohns.edu and include in the body of the message: subscribe itd-jnl <private-name> <last-name> set itd-jnl digests

access@hookup.net: A list dedicated to closed-captioning, audio description, and other Media Access issues. The Media Access list will entertain all manner of discussion related to those topics, including reports of good - and bad -

captioning, technology issues, and “nuts-and-bolts” questions. To subscribe, send a message containing the words subscribe access to listmanager@hookup.net

maiser@fs1.sched.pitt.edu: AER listserv has legislative information as well as items of interest to professionals in the blindness field. to subscribe, send the following message to maiser@fs1.sched.pitt.edu: subscribe aernet <firstname> <lastname>

Web Sites: <<http://www.afb.org>>: American Foundation for the Blind

<<http://www.aph.org>>: American Printing House for the Blind

<<http://www.hicom.net/~oedipus/blind.html>>: Blindness-Related Resources on the Web and Beyond

<<http://welcome.to/blindlinks>>: Welcome to Blind Links

<<http://www.viguide.com>>: V.I. Guide, A Parent's Guide to Internet Resources about Visual Impairments

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<<http://www.nfb.org/computer.htm>>: Computer Resource List

<<http://www.az.com/~dday/blindkids.html>>: Resources for Parents and Teachers of Blind Kids

<<http://www.tsbvi.edu>>: Texas School for the Blind and Visually Impaired

<<http://www.lowvision>>: The Low Vision Gateway

<<http://weber.u.washington.edu/~chudler/java/reveye.html>>: Eye/Vision Review

APPENDIX

J

Content Review Panel

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Teacher of Visually Impaired &
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17670 Blackfoot Street, NW
Andover, MN 55304

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Special Education Division
515 L Street, Suite 270
Sacramento, CA 95814

Mr. John Herner, Director
Division of Special Education
Ohio Department of Education
933 High Street
Worthington, OH 43085

Kathy Huebner
Graduate Studies
Pennsylvania College of Optometry
8630 Old York Road
Elkins Park, PA 19027

Dr. Gaylen Kapperman
Department of Special Education
Area of Visually Handicapped
Northern Illinois University
DeKalb, IL 60115

Sharon Knoth, Education Consultant
State Consultants for Services to
Visually Impaired Students
Indiana Department of Public
Instruction
Room 229-State House
Indianapolis, In 46204-2798

Mary Ann Lang
Lighthouse National Center for Vision
and Child Development
111 East 59th Street
New York, NY 10022



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AMERICAN PRINTING
HOUSE FOR THE BLIND**

“Education must aim at giving the blind child a knowledge of the realities around him, the confidence to cope with these realities, and the feeling that he is recognized and accepted as an individual in his own right.”

Berthold Lowenfeld

For general information:

National Association of State Directors
of Special Education, Inc.
King Street Station, I
1800 Diagonal Road, Suite 320
Alexandria, VA 22314

Tel: 703.519.3800

Fax: 703.519.3808

TDD: 703.519.7008

For additional copies:

Perkins School for the Blind
175 North Beacon Street
Watertown, MA 02472

Tel: 617.924.3434

Fax: 617.926.2027